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SCIENTIFIC TEMPERANCE JOURNAL

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CONTENTS: SPRING, 1919

FRANCE'S BATTLE AGAINST ALCOHOLISM	I-32
FEELING FOR A METHOD	2
RECOURSE TO EDUCATION	6
MORTALITY FROM ALCOHOLISM IN PARIS. <i>Chas. Fernet</i>	8
ALCOHOLISM AS A FACTOR IN TUBERCULOSIS. <i>Paul Reynier</i>	11
ALCOHOLISM UNCONQUERED WHEN THE WAR BROKE OUT	15
SCIENTIFIC OPINION MAKING PROGRESS	16
WAR MEASURES AND DIFFICULTIES	20
SIZE OF PROBLEM	23
POPULAR WAR PROTESTS	24
SOCIAL REVOLT AGAINST LIQUOR POWER	26
THE TEMPERANCE MOVEMENT	27
THE FUTURE OF WINE	32
FROM VARIOUS LANDS	33
A WOMAN, THE SCHOOLS AND PROHIBITION	39
BEER AND CHILD MORTALITY	40
AMONG THE MAGAZINES	42
NOTES ON MORTALITY BY HABITS. <i>Percy Evans</i>	52
NEW BOOKS AND PAMPHLETS	55



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SCIENTIFIC TEMPERANCE JOURNAL

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FRANCE'S BATTLE AGAINST ALCOHOLISM

ONE of the results of the war is the recognition of the fact that in the future there must be between the nations better mutual understanding of their individual problems. It is in this spirit that the JOURNAL presents this month a series of articles on the drink question in France. They do not primarily deal with the results of alcoholism except in one or two instances. They are all drawn from French sources. Several of them represent in part discussions which have been going on at intervals in the Academy of Medicine for nearly fifty years as the members sought to find and to remove the cause of the alcoholism in France which they were compelled to recognize.

Against this "alcoholism," there is a growing volume of popular protest as indicated by the extracts from the current press. As yet, however, few apparently appreciate the probable extent to which wine has been a factor in perpetuating the use of alcohol, increasing habituation which has sought satisfaction in the stronger liquors. The financial interests are admittedly powerful against change and this is as true of the wine interests as of those concerned with the stronger liquors.

The war, it appears, brought liquor difficulties to France as to other nations. As in the other nations the war like a lightning flash revealed the wastes of drink, its depletion of national resources, its menace to rapid recuperation.

Apparently the law of progress against alcoholism is (1) Moderation in the use of spirits, (2) abstinence from and prohibition of spirits, (3) total abstinence from all alcoholic liquors, (4) heavy restriction or prohibition of the liquor traffic. The stages may overlap, but in general the movement advances along these lines.

Perusal of the following articles will perhaps suggest to each reader a conclusion as to the stage in which France is now laboring for her salvation from alcohol.

6193

FEELING FOR A METHOD

WHEN the early American temperance movement for abstinence from distilled liquors was at its height and E. C. Delavan visited Europe with offers of assistance in starting similar movements, King Louis Philippe of France told him (1838) that the drunkenness in France was due to wine. That was when wine was plentiful and cheap, before the grape vine diseases reduced the wine production. Before this time, even, French medical writers had published articles on intemperance and alcoholism (Leclerc, 1775; Grand, 1810; Ceron, 1811; Plet, 1823; Trevedy, 1828; Royer-Collard, 1838).

Between this period and 1873, when the first law against drunkenness was passed, a number of similar articles appeared, two particularly on the alcoholism among the working classes.

The discussion which led to the enactment of this law began in the Academy of Medicine of Paris, a body holding an advisory relationship to the Government, during the siege of Paris by the Prussians in 1870. A surgeon, asking for information and advice concerning the refractory behavior of wounds in alcoholics, started the discussion.

There was no lack of response to the request. The conditions of the internal organs, unfavorable to the healing of wounds, were explained by M. Gosselin..

Another member cited statistics showing that in the Crimean war the French soldiers had a death rate in surgical cases of 70 per hundred while that of their allies was only 27 and 28. It was not due to any inferiority of surgical skill, but, in his opinion, to the lower stamina of the French race due to mixture with other races. That being the case, they were less able to resist alcoholism and it became for them a veritable scourge.

During the Franco-Prussian war a good deal of alcoholism among the soldiers had been caused by the foolish desire of the people to treat them to wines and spirits. The custom of drinking on an empty stomach was a fertile cause of digestive disorders that interfered with the supply of the plastic material needed in the blood to effect normal healing.

The interest in the subject and the general feeling that it was very important that something be done to check alcoholism, especially in the national conditions caused by the war, led to the appointment of a committee by the Academy of Medicine to draft a series of educational statements for distribution among the people, the working people particularly, and a request to Parliament for a law against drunkenness.

After five months of labor, the committee brought in a report in which the following points were emphasized: The tendency of the moderate use of alcoholic liquors, wine included, to lead to immoderate use; the increasing consumption of alcohol in France and with it the increase in disease, particularly insanity; the decline in morals; the facts that whatever kind of alcoholic liquor is used, it is the alcohol in it that affects the body; that among the special effects are greater fatality from pneumonia and difficulty in the healing of wounds; that the effects extend beyond the drinker and strike his descendants in whom it lays the foundation for rachitis, scrofula and consumption.

An illustration of the tendency of moderate use to lead to immoderate use was given in tracing the drinking habits of the working classes. They passed from the use of red wine to white because the latter gave the greater feeling of excitation. From white wine they went to liquors which gave the effect they sought more quickly. Finally even spirits grew insipid and they took to using the essences and appetizers. By this time the digestive processes which these liquors were supposed to promote became every day weaker.

It was specifically pointed out that the emphasis placed on the stronger drinks did not exonerate the weaker ones. The habit of many people who believed themselves to be very sober, taking only undiluted wine with their meals or a small glass of spirits after one or more meals every day, might not evoke the symptoms of serious alcoholism and yet be the source of digestive disorders, rebellious headaches, attacks of gout, chronic bronchitis and other ills that quickly disappeared if users were wise enough to renounce all these excitants. Or, on the contrary, ills became aggravated and passed into incurable diseases in those who allowed their sensuality to dominate them.

In spite of all this significant teaching, the instruction prepared for the people stopped short of advocating total abstinence, that is, it tried to teach moderation, and neither it nor the law for the punishment of public drunkenness, which Parliament passed in 1873, on the Academy's recommendation, checked the advance of the "scourge."

PROMOTION OF MODERATION DOES NOT PROVE A REMEDY IMPURE ALCOHOL ATTACKED

After twelve years' trial of the teaching of moderation and the punishment of public drunkenness as measures against alcoholism, we find the Academy of Medicine again entering upon a discussion of an effective remedy. This time the cause of the national menace is attributed to the impurities of the stronger liquors, and the remedy is believed to be a return to the use of natural wine, cider and beer.

One member only at this time made the objection that the evils of alcoholism were due to the quantity of alcohol consumed, irrespective of the kind taken. He pointed out that there were two kinds of alcoholism, drunkenness, or the acute form, and the chronic or slow poisoning called alcoholism. A man became an alcoholic from the quantity of alcohol he took.

It was shown in the discussion that drunkenness was common in the wine-making districts before the grape vine diseases had stimulated the production of alcoholic liquors from other sources than grapes. It was also pointed out that cider and beer as well as wine were capable of causing drunkenness, and that liver cirrhosis, nervous diseases and predisposition to tuberculosis could be traced to wine drinking.

Before the discussion had ended, a Parliamentary commission at work on the quinquennial revision of the liquor revenues appealed to the Academy for its opinion as an aid in the revision. The Academy decided that it could enter properly only upon the hygienic aspects of alcoholic drinks and a committee was appointed to draft recommendations.

This committee made a strong attack upon "industrial" alcohol, that is, the alcohol distilled from other sources than wine. It proposed to forbid the fortification, or "vinage" of wines with these "bad" alcohols, and to require that no spirits and liquors should be sold containing more than 1 per cent. of the "higher" alcohols, amyl, furfural, etc. They also required a reduction in the number of retail places which had sprung up in great numbers to afford an outlet for the increasing manufacture of liquors made up of the flavored and treated products of this industry.

These recommendations had to be considerably modified to meet the objections that were raised in the Academy of Medicine. It was shown that both wine and the spirits of wine contained the higher alcohols; that the sugar which the committee proposed to allow the wine makers to use to increase the alcoholic content of the weak wines so that they could be preserved and shipped would probably be beet sugar, the very source of much of the industrial alcohol they had condemned.

The modified recommendations permitted the fortification of wines with "pure" alcohol if it did not exceed 2 per cent., and demanded absolute purity in all alcohol used in the manufacture of brandy and other liquors. They retained the demand for the reduction of retail sellers and for the punishment of drunkenness, to both of which Parliament gave no heed.

The idea of promoting the use of wine by removing all taxes upon it and laying taxes upon spirits that should make up the deficiency in revenue, made the strongest appeal to the law makers, and their chief efforts for a number of years were directed to the complex problem of accomplishing this with satisfaction to all the financial interests concerned, a Herculean task.

THE MOVEMENT FOR GOVERNMENT MONOPOLY OF SPIRIT RECTIFICATION

The Academy of Medicine was a unit in desiring to combat alcoholism, which was everywhere recognized as a growing national peril, but as is always the case when the nature of alcohol is only partly understood, members differed sharply upon the best methods of accomplishing it. As the 1895 quinquennial period for the revision of the liquor laws approached, two members who presented the belief that the higher alcohols were the source of the injury, basing their belief on experiments which had shown them to be more poisonous, proposed recommending to Parliament that the absolute rectification of all alcohol be required and secured by legislative action so that it would be no longer possible to offer for sale any impure alcohol or alcoholized product; also, that the use of artificial bouquets, oils, aldehydes for making artificial wines and liquors be absolutely prohibited.

These measures which they regarded as fundamental, they would have supplemented by fiscal, moral, educational measures, as auxiliaries and also by curtailing the number of retail sellers as a means of reducing temptation.

Ten years had elapsed since there was only one member to contend that alcoholism was the result of the quantity of alcohol taken and not of the kind. He was now re-enforced by a number of others, among them M. Daremberg, who main-

tained that all alcohols were poisons, and that the higher alcohols were present in such small proportions in comparison with the ethyl alcohol that they were of no importance.

Again it was shown that wine and spirits distilled from wine contain the higher alcohols as well as the spirits obtained from other sources, and that these cannot be driven off from wines without affecting their flavors.

Objection was made to calling wines "hygienic drinks," as a term that had originated with the financial interests and should not have the sanction of the Academy. A reduction of the number of cabarets was deemed an essential in the prophylaxis of alcoholism in France.

It was contended that the sale of "rectified" spirits would not affect the vital factor, a reduction in the consumption of alcohol.

M. Laborde insisted on his diametrically opposite view, that the rectification of all spirits, secured by a government monopoly to shut out all chance of ineffective rectification would solve the problem.

In view of this wide divergence of opinion a committee was appointed to give careful consideration to the recommendations to be made to Parliament.

While the committee was at work, numerous papers were presented by the members on the subject of alcoholism. One dealt with the effect of the use of beer and wine by nursing mothers upon the children. Convulsions, irritability and restless sleep or insomnia, were common effects. A current idea among the women was that water was indigestible and unhealthful and that beer and wine were "hygienic," an "unfortunate idea," said Lancereaux, "that it will take a long time to correct."

Dr. Lancereaux also presented evidence showing that cirrhosis of the liver was caused by wine-drinking, due, he thought, to the sulphate of potassium used by the wine makers, which he wanted forbidden.

Other members did not consider that this had been proved and thought the wine makers could not be forbidden to "plaster" their wines with this substance until there was more evidence against it.

More than a year was consumed in the discussion and the Academy was not able to give Parliament the information it wished as to which constituents of liquors were the most harmful because of the growing belief that ethyl-alcohol was the responsible constituent and the quantity taken the determining factor in alcoholism.

In the meantime, Parliament and the Government had both appointed their own commissions of inquiry for light on the question how to deal with the alcohol question. One of these commissions, headed by M. Guillemont, a member of the Chamber of Deputies, made a very comprehensive inquiry, in which M. Laborde's views on rectification were given a hearing and a bill embodying them was submitted.

But Parliament found even greater difficulty than had the Academy in reaching an agreement, for whatever change was proposed touched some financial interest which at once made strenuous objections. France's devotion to the principle of liberty, which in 1880 removed all restrictions from entering the lucrative liquor

business, began to bear fruit in its numerical and therefore political strength.

Finally, about 1897, legislation was enacted which relieved the light liquors, wine, cider and beer, from taxation, and shifted the burden upon spirits. But it did not solve the nation's alcohol problem.

* * *

RECOURSE TO EDUCATION

DISAPPOINTED over the failure of Parliament to enact the measures which he considered would be effective in checking alcoholism, M. Laborde headed a movement for the education of the public by an organization called "The Society Against the Use of Spirituous Liquors"—sixty years after the United States abandoned that half-way measure for total abstinence. He submitted a copy of the constitution of the society to the Academy and bespoke the coöperation of the members in its object.

This was cheerfully granted, and the Academy has been well represented in both the movement against the use of spirits and the society into which this first organization was subsequently merged, the present National League Against Alcoholism.

Education against alcoholism in the schools had already been put into operation by ministerial order issued March 9, 1897. The following are samples of the information which was expected to inoculate temperance in the use of alcoholic drinks. They appear as language exercises in a school grammar:

"Alcohol is a liquor extracted by fermentation from sweet liquids capable of being fermented."

"If one injects a little alcohol from wine into the tissues of a guinea pig, he will be drunk for a little while; but if one injects the same quantity of industrial alcohol the animal will not be long in dying after an epileptic seizure." [This does not harmonize with the statements of the scientists concerning the results of rectification.]

"The least injurious alcohol is ethyl-alcohol, which is the dominant one in wine. The most dangerous is amylic alcohol which forms the major part of the industrial alcohols." [This is manifestly an exaggeration. It is not the *chief* alcohol in the grain or potato spirits.]

"The fermented drinks contain the least injurious alcohol and generally in small amounts. Wine, cider, perry, and beer which have not been fortified are therefore healthful drinks."

[M. Lancereaux and other members of the Academy would not agree to calling these "hygienic" drinks and deplored the fact that they passed as such among the people.]

After describing the fortification, or "falsification" of wine, cider and beer, with "bad, cheap" alcohol the admonition is given: "Do not abuse even the hygienic drinks; they may have been fortified without your knowledge."

Another lesson contains more effective admonition quoted from *Gaufrès*. "Drink itself is an enticement. It has a magic power that is almost impossible to resist. One who has drunk, drinks. One begins by a small glass and promises to stop with that; he continues with a second, and he finishes by not counting. It is impossible to keep within the bounds of moderation." It is difficult to understand how one can call drinks 'hygienic' which have this recognized power."

The same quotation states that young children are often enticed to drink and arrive at school drunk, and that apprentices are taught to drink in the cabarets.

The French school temperance instruction is given in connection with grammar, arithmetic, hygiene and morals. Posters have been used in class rooms, anti-alcoholic matter printed on text-book covers and demonstrations made by alcoholizing rabbits, mice and worms.

Dr. Roubinovitch of the Salpêtrière volunteered with Drs. Magnan and Lancereaux to draw up schedules of instruction. He himself not only lectures on alcoholism at the normal schools and universities but goes into common schools lecturing with a stereopticon (Gordon: The Anti-Alcohol Movement in Europe).

All the instruction is practically directed against spirits and what is said against wine is carefully qualified.

As far back as 1896 Dr. Laborde wrote in his manual for school children (*La lutte contre l'alcoolisme*, p. 108): "Wine is of no value for the good action of the organs and harmful to many persons, hindering digestion and congesting the brain. The true hygienic drink is water. Yet wine can be tolerated if it is absolutely free from *bouquets* and adulterations and has a very low degree of alcohol, and is used in small quantities. For children and adolescents, never!"

Past educational measures are sharply criticized by Dr. Legrain representing the abstinence viewpoint (*Les Annales Antialcoolique*, February, 1919). He declares it is necessary to begin again from the beginning. "All the classic books still proclaim that unscientific notion that certain alcoholic drinks are hygienic. This is politics not instruction." In this Dr. Legrain and the Academy of Medicine appear to be in accord.

The National Committee on Physical and Athletic Education and Social Hygiene has organized a course of forty-five lectures which are being given this spring under official patronage at the Pedagogical Museum. Eleven of the lectures are to be given by Dr. Legrain dealing with all phases of the alcohol question.

An examination at the end of the full course will entitle one to a certificate of Social Hygiene Studies.

Another popular course of lectures has been held in Paris this winter

under the auspices of the National League Against Alcoholism. The lectures which dealt with the physiological, legislative, financial and propaganda points of view were followed by discussions.

* * *

MORTALITY FROM ALCOHOLISM IN PARIS*

BY M. CH. FERNET

Among the papers presented before the Academy of Medicine were the following two by Ch. Fernet and Paul Reyneir which give evidence from medical experience as to the presence and results of alcoholism in Paris and in France.

IMRESSED for a long time by the ravages caused by alcoholism and syphilis, I have thought that one of the means of combating it would be to make known by means of weekly statistics of the city of Paris, the considerable part they play in the general mortality. The fear of death might, in the absence of more noble sentiments, serve as a salutary curb.

On three different occasions I have proposed to the Academy that alcoholism be expressly indicated as a cause of death in the official statistics in place of the practically useless indication of the organic diseases which depend upon it, and the last time I made the same proposition in regard to syphilis.

The Academy gave its approval to the project; but after discussion and submission to a commission composed of the section on hygiene, reported by our colleague, Netter, taking account of the difficulties in execution that might be met, they voted, as a tentative preliminary, that an invitation be sent out to the medical societies, hospital staffs, etc., proposing that those who were interested in this question should gather personal statistics which would be published in the proceedings of the societies. (Meeting of Dec. 5, 1905.)

The Hospital Medical Society was willing, at my request, to take the initiative in this inquiry in the hospitals, and a certain number of my colleagues assumed the task, established in their practice regular etiological statistics covering a period of from twelve to fifteen months, and entered on the registers under their charge the reports received on this question.

These documents have been collected and published in the Bulletin of that society (Bull. de la Soc. méd. des hôp., meetings of Nov. 2, 1906, and Oct. 18, 1907). I bring only the resumé of this inquiry before the Academy, after expressing my very great appreciation to all those who have given me their valuable coöperation.

Reserving for a future communication that which touches syphilis, I will present today only that which concerns alcoholism.

According to the method that we adopted for the establishment of our statistics, alcohol intervenes as a cause of death in two different classes: 1. It is the principal, fundamental cause when death results from a disease notoriously and specifically alcoholic (delirium tremens, meningitic hemorrhage, cirrhosis, etc.).

*Bulletin de l'Académie de Médecine, Nov. 19, 1907.

2. It is the accessory, or precipitating cause when death results from a disease, such as pneumonia, erysipelas, tuberculosis, which occurred only, or which ended fatally only because the patient was an alcoholic.

With this preliminary explanation, here in brief are the statistical results obtained in a certain number of hospitals situated in different quarters of Paris, by MM. Ballet, Barth, Brissand, Gailliard, Jacquet, Letulle, Raymond, Rénon, Sireday, Triboulet and Troisier, during a period of from ten to fifteen months.

Of a total of more than 1,500 consecutive deaths occurring in the general hospitals, alcohol was the cause of death in a third of the cases (33.81 per cent.); it was the principal cause in one-tenth of the deaths (10.20 per cent.); it was an accessory cause, or a large factor, in more than two-tenths (23.61 per cent.).

The influence of alcoholism upon mortality was more marked in men than in women; but the difference is less accentuated than one might think. Thus, while the average with men is 38.81 per cent., that of the women is 27.29 per cent. One might say that the deaths from intemperance among women are approximately two to every three among men.

What are the manifestations of alcoholism that cause death and that are most frequently indicated in our statistics? It is not the acute forms, it is the chronic. Among the first, delirium tremens always stands out prominently, being of quite frequent occurrence, while meningitic hemorrhage and acute steatosis of the liver are much more rare.

In the second class is liver cirrhosis, and still more frequent the cardiovascular diseases, with all their consequences such as cerebral hemorrhage, softening of the brain, interstitial kidney disease, diffuse *meningo-encephalitis*.

But beside the diseases related directly to alcoholism must be placed those that would not have developed, or need not have led to death if the person attacked had not been an alcoholic. Among these are pneumonia, the grippe, erysipelas, and most of the acute infectious diseases. The alcoholic is a bad patient, who, on the one hand, offers an excessive receptivity to all the infections, and on the other, breaks and succumbs before accidental maladies. All the clinicians have been often struck by the extreme frequency of tuberculosis in the alcoholics. What does this mean, and does it give one the right to say that it is alcoholism that favors the development of tuberculosis? Many believe that this is often the case. We have here a new example of the degeneracy produced by alcohol, which renders the organism too susceptible to the germs of infection.

If the influence of alcoholism is as I have shown you in the general hospitals, it is considerably more in the hospitals for the insane. The valuable documents that have been communicated to me by Prof. Joffroy for the asylum of St. Anne, and by Dr. Séglas for the hospital of Bicêtre are very convincing. Joffroy found in 36 consecutive deaths (1905-1907) 30 alcoholics, that is, 47.62 per cent.

Statistics published by our colleague Magnan (*Revue d'Hygiène et de police sanitaire*, March, 1907) relative to alcoholism as a cause of mental disease in the St. Anne asylum (1902-1904) furnished a similar proportion—41 per cent. of the male insane were alcoholics, and 15 per cent. of the females. And in the majority

of these cases alcoholism was the principal cause, the true cause of the mental alienation, 28.75 per cent. among the men and 8.5 per cent among the women.

These statistics, in which the agreement furnishes a strong presumption for their exactness, show that in the insane asylums, alcoholism enters as a cause of disease and death in nearly half of the cases among the men, and of a sixth among the women.

From all that has preceded we see that the influence of alcoholism upon mortality in Paris is enormous. If the official statistics would attribute to it all the deaths for which it is really responsible, instead, I repeat, of dissimulating, for the most part, under the catalogue of different diseases to which alcoholism leads, one would see alcoholism take its place beside tuberculosis in the first rank of the causes of mortality.

If the weekly bulletin of municipal statistics would publish the fact that among 1,000 deaths (average figures) which occur in Paris each week, there are from 120 to 200, maybe more, in which alcoholism is either the exclusive, the contributing, or the predisposing cause, maybe this knowledge, popularized in the press, would give rise to salutary reflections or fears.

In conclusion: Alcoholism in France is one of the disgraceful plagues of our times and also one of the principal causes of death. It enters as a cause of death in one-third of the general mortality. It is the principal, or even sole cause of death in one-tenth of the cases. It is the accessory, or, better, the contributing cause in two other tenths. It enters into half of the mortality among the insane.

Alcoholism is therefore a veritable social peril. All those who are responsible in any way for the public health are in duty bound to denounce and combat it.

*In a footnote attached to these figures Prof. Fernet cites a recent investigation made by M. Mirman, Director of Public Assistance to the Minister of the Interior, who credited to alcoholism as an exclusive, predisposing and contributory cause of insanity only 13.88 per cent of the inmates of the asylums. (*La Presse medicale*, Oct. 5, 1907.) Although this is a considerable proportion, says M. Fernet, and shows an increase nearly double in the last ten years; still, if one compares it to the high figures already given, it seems as if it must be limited to the insanities that are due exclusively to alcoholism, and not inclusive of those in which alcoholism is a predisposing or contributing factor. However that may be, M. Fernet has more confidence in the documentary evidence furnished by such medical authorities as Joffroy, Magnan and Seglas than in those of a governmental inquiry.—Editor.

* * *

WHETHER found in beer, wine, or spirits, alcohol remains a chemical substance of well-defined formula, and its toxic action in the human system is the same.

You all recognize the symptoms of alcohol poisoning because "drunkenness" is really only acute and rapid poisoning by a toxic substance. . . .

Slow and chronic intoxication without drunkenness is not less serious. It is entirely possible to produce it by beer.—Dr. Ley, Belgium.

ALCOHOLISM AS A FACTOR IN TUBERCULOSIS IN FRANCE*

BY PAUL REYNIER

YOU heard the other day our distinguished colleague, M. Fernet, whom I can not too highly congratulate on his valuable work, demonstrate to us again, but this time with greater abundance of detailed, painstaking statistics, what our colleagues, MM. Lancereaux, Herard, Brouardel and others have repeatedly denounced, the dangers of alcoholism.

But to all that has been said, he has added these statistics which show us how by diminishing the resistance of the individual to infection, by attacking his organs of elimination, by altering his blood vessels and his nervous system, alcohol contributes a very large part in diminishing the average of human life in a country where the consumption increases every day. And the country of which M. Fernet spoke is our own.

Those parallel statistics could not be heard without emotion. They ought to cause reflection among those whom we expect to guard the public health and conserve the family and the nation, and who ought to regulate the sale of alcohol of all kinds destined to be drunk, sale that should not be left as free as it is today, because from this comes all the evil.

But in this struggle that we are carrying on with so much energy, I am surprised that we do not ask for more evidence from the surgeon. The surgeon can, in fact, add much to what medicine has produced.

The statistics of surgery are not less disquieting, nor less documentary, because there the evil is visible, tangible, retards the individual, and before killing him makes him an invalid who finds it impossible to support himself and becomes a charge upon his family.

You have denounced alcoholism as a factor in tuberculosis; we denounce it as a cause of those cases of external tuberculosis such as white tumors of all kinds, Pott's disease, osteitis, fungoid synovitis, that become every day more numerous, and crowd our wards, necessitating beds for incurables in the hospitals for which we ask but are not able to obtain in sufficient number.

I do not believe I exaggerate in saying that after forty years of age, in the second half of life, alcoholism is the cause of from 90 to 100 per cent. of osseous and external tuberculosis.

This assertion seems to me, after many years of observation, to be so true that my pupils often hear me say, after the examination of a tuberculous patient who has confessed to drinking to excess: "Any one who drinks must sooner or later see his wine or his alcohol change to pus."

In the extended experience I have had at the Lariboisière hospital, where I have the direction of a ward of 60 beds of chronic cases, it has been easy for me to collect the records of a sufficient number of cases to lead to this conviction.

If I take the cases of external tuberculosis that have entered my ward in the last two years, those who are under my care, I find 35 in whom tuberculosis has

*Bulletin de l'Académie de Médecine, 1907, Vol. 58, pp. 407-414.

appeared after their fortieth year, often in men who are vigorous and have previously enjoyed apparently good health. But in all I have found alcoholic antecedents; in five the alcoholism was accompanied by syphilis.

What struck me most forcibly in all these cases was that, contrary to tuberculosis in children and young people, the antecedents in these cases gave no history of tuberculosis. Often they were the first in the family to be attacked; and in the genesis of the tuberculosis, alcohol alone could be incriminated. The inquiry could not lead astray. It is this that does the injury, prepares the soil, more or less slowly, the soil in which the Koch bacilli develop. Thus alcohol prepares the bed for tuberculosis.

(A number of typical cases were here cited by M. Reynier: A coachman of 65 had a white tumor in the joint of his foot which had necessitated amputation of the foot. Then he had another white tumor in his left knee, with an abscess, and had to have an amputation of his left leg. At the same time tubercular arthritis presented itself, which M. Reynier was able to cure. This man was a heavy drinker of wine, drinking several quarts a day and in the evening maderia and vermouth. He was a strong man whom no one would think of having tuberculosis. He was free from syphilis, and after two years of abstinence from all alcoholics he recovered his health and the tuberculosis was arrested. The other cases presented similar features—apparently vigorous and healthy until from two to five years previously, when the tumors, abscesses, etc., began to develop. All heavy drinkers, chiefly of wine, but also of the heavier liquors.)

In nearly all of these cases of late, external tuberculosis, pulmonary lesions were absent. They came from local injuries in which the bacillus, finding a favorable soil, set up its attack.

If one reflects on the daily injuries to which, in nearly all the trades, the workmen are exposed, one sees that the patrons ought to be interested in joining us in this struggle against alcoholism, and to refuse the workmen that to which they are addicted would be only, in case of accident, to diminish their responsibility.

But it is not simply to add these facts to those which M. Fernet gave us that I have asked to address you. It is to add another chapter, quite as sorrowful, and one that I was surprised to see omitted by our colleague.

Alcohol strikes not only the individual who drinks; it does not simply shorten life. Like syphilis it strikes his descendants, and, sometimes, still harder than the one who gives himself up to drink.

In all that has been said upon alcoholism, emphasis has been placed upon the mental troubles of the children of alcoholics, degenerations of all kinds, lesions of the nervous system, but it has not been made sufficiently clear that while alcohol leads to tuberculosis in the drinker it also gives rise to diminished resistance to infection in the children of the alcoholic; and these are sometimes attacked when the father, the cause of the evil, remains immune.

It is this martyrdom of the poor beings whose only crime is being born to a father who drinks, that should be made known. Perhaps those who have no fear

for themselves will fear for their children, and the thought of the remorse they will suffer may halt them at the brink of the abyss.

One has only to attend a consultation in the workmen's quarters, in those of Levallois-Perret, for example, where I go once a week for consultations. There I see little children, from two to five years, whom I have to treat for white tumors, for hip disease, for Pott's disease, for adenoids, for fungoid synovitis, who come to me in great numbers every year.

But what interests me is to trace the antecedents of these children.* While some fathers and mothers are sick, I am often, on the contrary, astonished by the healthy appearance of the mother, examination of whom shows no indication of tuberculous lesions and who presents a striking contrast to the debility of the child. When my negative examination is ended I ask about her husband, and when she tells me that he also is healthy I then ask what he does. Often he is a coachman, or a mechanic. Finally I ask if he drinks. And how many times I receive the answer:

"Ah, Monsieur, it is his only fault!" Her husband drinks daily quarts of wine and spends much of his wages on *aperitifs*.

And when you have heard this answer two or three times during every visit does it not give you the right to think that this infantile tuberculosis is born of the fault of the father and that the child is pining away from paternal drunkenness, and sometimes maternal.

I have in my care a family in which there were two children, one with Pott's disease and the other with hip disease. The mother is healthy, daughter of robust parents, never having had a pulmonary tuberculous lesion. The father died of tuberculosis. Evidently the children's tuberculosis springs from his. But the parents of this father are still living, both aged, the one sixty-five and the other sixty-seven. Whence, therefore, came this tuberculosis that struck the father and my two little patients, in a family of people who appear so healthy and resistant?

This is what I was told of the habits of the grandparents. On the side of the mother of the children the grandparents were sober; but on the side of the father, his father, the old sixty-five year old man, was a furious drinker. He had always drunk and drunk heavily; water and he were strangers, but on the contrary, one *aperitif* appealed frequently for another. And this inveterate alcoholism he had resisted. But his son, who was always sober, paid the tribute for his father's alcoholism in tuberculosis, and his two little sons were pining away. Since then the one who had hip disease died of tuberculous meningitis. And I still see by the side of his coffin the grandfather who approached me and asked: "How is it that such vigorous parents as we, have such feeble children?"

I tell you that after having helped the mother of these two children through years of suffering, I had a feeling of revulsion toward this man, and I could not help saying, "You have drunk too much, monsieur."

*"She is a wonder, that little mother," said Major Gracey. "but there is no use telling her yet that the child is clearly the product of alcoholic stock and therefore is virtually sure to get tuberculosis—if not immediately, then later. It's 50-50 whether we can save him now. His father's apple-jack will do for him later. Oh, the ravages of Brittany alcohol!"—From "The Singing Heights," by Helen Davenport Gibbons, Century, April, 1919.

I have the care of still another unfortunate child attacked by Pott's disease, whose father and mother are both free from tuberculosis. All the family are healthy. But the father is an outrageous drinker of *aperitifs* and all kinds of alcohol.

I will cite still another case of a woman of thirty-nine years of age, in good circumstances, who came to me with tuberculous lesions in the lungs of long standing and a tuberculous wrist. I treated her for a long time and finally asked about her family. She had lost a young brother with tuberculous meningitis. She had a sister who was consumptive; and her father and mother were still living, healthy and not touched by it.

Surprised by this absence of antecedent heredity and satisfied that my patient did not drink, I asked my customary question about the habit of the parents. The husband of my patient exclaimed:

"Ah, my father-in-law! It is frightful, the way he drinks!"

When he told me what the father drank, I had no longer any doubts. Here were three children born predisposed to tuberculosis because the grandfather had been a hard drinker.

And there was a cuirassier of Reischaffen, a giant, a head taller than I, who became a prosperous wine merchant. But he drank, and in ten years, at the age of forty-seven, he was in the advanced stage of tuberculosis. He died; his wife, a very healthy woman, died of tuberculosis five years after his death, leaving two children, who were also attacked by the disease.

Thus the whole family was made to disappear by alcohol.

I could give you many other instances equally conclusive, but I do not want to trespass upon your attention.

It is sufficient for me to say that if anyone will investigate systematically, as I have done, the alcoholic antecedents in a family he will be startled to see the amount of infantile tuberculosis that has no other origin; tuberculosis that decimates the children of the early age or makes them invalids for life, in conjunction with syphilis, as has been so well shown by Prof. Fernier; increases the infant mortality at a time when the diminution of births is a matter of such importance to our country.

In the presence of these poor children, invalids, victims of the vice of their fathers, before the sorrow of their mothers who trundle their invalid children about in their little carriages, one has a feeling of revolt toward those who in the exercise of their power might do so much toward putting a curb upon this alcoholism, but who hesitate to do it in submission to special interests that take precedence of the interests of society and of country.

It is not with the products of alcoholism, with the victims of hip disease, Pott's disease, degenerates and candidates for tuberculosis that we increase our armies. And, unfortunately, the tables of recruits are there to demonstrate the danger.

Will nothing be done to arrest this danger to our race? The resolutions that the Academy of Medicine have many times passed are not even given a hearing.

ALCOHOLISM UNCONQUERED WHEN THE WAR BROKE OUT

WHEN the war broke out in 1914, the "light" drinks had been free from taxes, and the strong ones heavily taxed for about seventeen years, nearly a generation. For the same length of time the school children had been "educated" to "temperance" by way of the "hygienic" drinks, beer, wine, cider, *et al.*

What were the effects upon France's alcohol problems?

The answer was given (February 23, 1915) by M. Ballet, chairman of now another committee on alcoholism appointed by the Academy of Medicine to recommend anew to the Government measures for annihilating the great scourge.

"No one at present seriously questions that the abuse of alcoholic drinks is a peril to the country and the race," he said. "The debates that have been held show that Parliament is fully conscious of this.

"It will astonish those who come after us to know that the coalition of certain interests during the last thirty years has compromised the physical and moral health of the nation and defeated those measures of public health that ordered the most elementary precautions.

"Unavailing efforts have been made by the Academy of Medicine, medical societies and congresses, leagues for public hygiene, general and municipal councils, and the courts, who during forty years have pointed out the peril.

"The hour has come when indifference to a matter of national health, culpable yesterday, is today treason."

Prefaced by such strong convictions one would expect to find radical recommendations. Nothing could be more disappointing to such expectations than some of the measures which the committee thought would be efficacious and which received the votes of the Academy. Such, for example as:

1. Prohibition of the sale of spirits above 50 per cent. alcohol.
2. Prohibition of the manufacture, circulation and sale of all liquors and of aromatic wines containing more than 23 per cent. alcohol, each class of these not to contain more than half a gram of essence per liter. Sugared liquors, containing more than 300 grams of sugar per liter allowed to contain 30 per cent. alcohol.
3. Prohibition of the employment, in making aromatic liquors, of chemical products of plants or of essences containing among their normal constituents thuyone, benzoinic aldehyde, or salicylic ethers.
4. High taxation of all liquors, of whatever nature, containing more than 15 per cent. alcohol.

To this was again added the hope that the government would give attention without delay to reducing the number of saloons and to closing the clandestine ones.

SCIENTIFIC OPINION MAKING PROGRESS

HAPPILY for France some of her scientific leaders in the Academy of Medicine are showing growing clearer conceptions of the connection between the nature of ethyl-alcohol wherever found and the persistent, disturbing problem of alcoholism.

DISCUSSION OF THE FRENCH ARMY WINE RATION

Some of these advanced opinions came out in the debate over recommending a wine ration for the army (July, 1915). A number of members were opposed to it; a number championed it with seeming impatient insistence. The strongest plea made by the latter was the promise that to provide every soldier with a daily ration of wine would be a means of checking alcoholism, and even the doubters voted for it in this hope.

The objections raised by the skeptics show the trend of the more recent opinions.

"If we give wine to our soldiers," said M. Chaufford, "let it not be done in the name of the questionable theory that alcohol is a food and may be so designated by physicians in dietaries.

"On the other hand, let us have a care, how this ration of wine, which the vote of the Academy defends with its authority, is interpreted by the wine merchants who watch on every corner of the streets for the unoccupied soldier.

"Do you believe it will be sufficient for all appetites? Popular experience says that he who has drunk will drink, and I have great fear that this ration of wine will be only a gratuitous supplement added to other voluntary drinks less wisely limited. In wishing to combat alcoholism in the soldiers we shall only aggravate it.

"I ask, therefore, that a corrective be added to the conclusions of the report and that it be said, 'If a regular ration of wine be distributed in the army, the soldiers must be content with that and not go searching elsewhere for a supplementary consumption of wine which will be, we know only too well, prejudicial to their health.'"

M. Harrier asked if veterinarians had ever considered that it would be useful to introduce a certain quantity of alcohol into the daily rations of working animals. He did not believe that the expenditure of energy by the soldiers at the front exceeded or even equalled that furnished by certain domestic animals, the coach horse, or the hunting dog, for example. These animals found in their natural food all the material necessary for their expenditures. One either increased or diminished the quantity. The committee proposes to add a small quantity of wine to the ration and estimates that it will act as a true food, necessary to the accomplishment of the work imposed. Current facts observed by those who are devoting themselves to the economic exploitation of motor animals, whether for mass work or for quickness, certainly do not lead to such conclusions.

M. Ch. Richet said that they must not be misled by the word calories. "Certainly, as physiologists have demonstrated, ingested alcohol liberates calories in the body. But, there are calories and calories. It must be that a substance in burning liberates calories. And why this combustion, which produces the calories, is it not to diminish the toxicity of the substance? Suppose that benzine ingested in the body burns and gives off carbonic acid and water, no one would have any idea of considering benzine a food.

"In our country of France and in many other countries also, it is almost universally thought that wine and alcohol give strength, vigor, and health. An enormous error, a profound illusion, but universal, so universal that neither the Academy of Medicine, nor any one in the world would have sufficient authority to reverse this sacred dogma. We would be absolutely alone, or nearly alone—may be even in this room we would find numerous contradictors—in wishing to condemn the use of wine. It must, therefore, be tolerated, attenuated, until it is possible to do otherwise.

"But, at least permit me to say that the use of wine, even in small doses, is bad, that it delays gastric digestion, and if it gives a temporary stimulation this is equalled by a following depression, in a word, it is contrary to natural hygiene, which alone is rational.

REFUSE UNQUALIFIED ENDORSEMENT OF WINE

"If, in giving wine in very small doses with the food of soldiers there is rigorous prohibition of the consumption of wine in the saloons so be it; but this is the only condition on which I would be willing to vote for the conclusion of the report."

M. Hanriot demanded that it be specifically stated that if the soldiers were given a ration of wine as indicated by the committee and proposed by vote of the Academy, the soldiers must not go outside and get more.

M. Menetrier thought it a good time to add the remark that he had been struck for some time with the increase in the number of cases of alcoholic cirrhosis of the liver coming to his hospital, an increase that it seemed to him corresponded exactly with the lowering of the taxes on the liquors called hygienic. For this reason he wanted to be precise in the conclusions that the average dose that they recommend should be as in the navy, half a liter.

M. Ballet was willing to modify the proposition in the direction indicated by the debate, particularly because the report would have no value if it did not receive unanimous consent. He proposed the following, which was adopted:

"That natural wine be introduced in moderate quantities in the same doses as in the navy in the regular ration of the soldiers and that precautions be taken that where the administration furnishes it to the soldiers they may not consume it elsewhere."

Soon afterwards, November, 1915, when an educational poster on alcoholism was being prepared by the Academy for use in the army, the discussion brought out more opinions in advance of the old standards.

At first one clause declared that wine, beer and cider taken with meals promoted digestion.

Objections were raised at once. M. Magnan said that wine did not aid digestion; that water, on the contrary, made the food more assimilable and thus favored digestion.

M. Linossier wished to insist upon M. Magnan's point. No doubt, he said, some people think that they cannot digest without wine, but this, he believed, was an auto-suggestion. He had treated numerous dyspeptics who began to improve as soon as the wine was stopped. He also objected to making any distinction between fermented and distilled liquors that favored the use of the fermented. He also objected to associating the term "hygienic" with the fermented drinks. He knew, he said, that this term did not originate with the Academy, that it was born of political and not scientific considerations, and that the committee had relieved themselves of the responsibility by using the words "called hygienic." Nevertheless, he regretted to see it in a note edited by the Academy. The "poilus" for whom the document was intended, would not get this shade of meaning, and how could the general public be made to admit excess in a hygienic drink?

M. Hayem agreed with Drs. Magnan and Linossier, and also held that even if taken only at meals, one quart was too much. Usually only two solid meals were taken in the twenty-four hours, which would mean taking half a liter (one pint) of wine at a meal, and he did not think the Academy could declare that such a manner of drinking was "hygienic?"

M. de Fleury also regarded this quantity as too much. In his psychiatric practice it was quite common for alcoholics to declare that they drank only wine, which meant to them that they avoided all intoxication. Men regard wine, he said, as something sacred; it means to them health, good spirits, courage and endurance. Absinth they recognize as dangerous, and they understand that the abuse of alcohol (spirits) may do injury; but wine they think is hygienic if they do not take enough to intoxicate.

These people consider two quarts of wine a day normal; but this incontestably alcoholizes. Wine he regarded as the more dangerous because it passes for a hygienic drink. In actual war, the men live much in a state of inactivity, and this does not enable them to oxidise 90 grams of alcohol a day, the amount contained in a quart of wine.

M. Débove, the Permanent Secretary of the Academy, and also President of the French National League against Alcoholism, said that scientifically he thought the Committee had made too much concession; nevertheless he voted for their report because he thought they had a better chance of being listened to if they did not advocate too radical a change in the soldier's mode of life. They had to consider the ideal virtue and the practical virtue. Absolute sobriety is the virtue that they would counsel, but they might not get a hearing. (This remark was applauded.)

The chairman then asked the Academy what quantity they thought might

be recommended. It was put to a vote. One quart received eleven votes; $\frac{3}{4}$ of a quart received 22 votes; a pint received 11 votes. Thus a large majority would not consent to advising more than a pint and a half a day.

Two members objected to defining the quantity. They thought it better to say in moderate quantities. They were reminded that most drinkers thought two or three quarts of wine a day a moderate quantity.

M. Magnan objected to its being said that wine was useful. He was asked what then they should drink. He said there was always water. But to this it was objected that there was not always water that could be carried to the front, and that the water accessible was often so impure that the soldiers hesitated to drink it.

THE FUTURE

It is recognized by these members of the Academy that France has not yet settled her alcohol problem but must do it if she hopes to recover from the effects of the war and retain her place among the nations. The evidence was massed in a stirring appeal made to the Academy February 15, 1916, to inform the Government of the perils that menaced the country through alcoholism and the need of combating it.

"The Academy," said M. Ch. Fernet, "is in a position to furnish documentary evidence more than sufficient to show that alcoholism is a powerful cause of sickness, death and crime, of physical and intellectual decay in the individual and the race. What are the proofs?"

"The hospitals are overflowing with sickness caused by alcoholism. The almshouses are filled with inmates whose disability is due to alcoholism. The insane asylums are overflowing with unfortunates whose intellectual decay is imputable to alcoholism. The prisons are overflowing with criminals and delinquents whose offenses often have no other origin than alcoholism.

"Here is enough to show the absolute necessity of combating the scourge of alcoholism until it is utterly vanquished. And yet no mention has been made of the pitiable descendents of alcoholics, nor of the physical injuries of which alcoholics are the authors, nor of the moral misdeeds of alcoholism.

"The descendants of alcoholics? They encumber the almshouses and asylums devoted to children. There are multiplied the degenerate and the blighted of all kinds, epileptics, idiots, dwarfed, vicious, who seem to be avowed to all the social miseries, and even crimes.

"The accidents caused by alcoholics? Industrial accidents, railroad disasters, of street cars and automobiles, incendiarism, scandals, and the whole series of misdeeds furnished by the daily papers. These accidents affect a multitude of victims, among whom are often the authors of the accidents.

"The moral misdeeds of alcohol? It would take too long to tell of all the evil effects of the cabarets for the individual and for society.

"Alcohol is defended because of its great revenues to the state. But alcohol costs the state more than it yields."

WAR MEASURES AND WAR DIFFICULTIES WITH THE LIQUOR TRAFFIC AS REVEALED BY THE PRESS

THE federation of dealers, café and restaurant managers, hotel keepers and cider makers of Nord-Nord-Ouest, France, held their eleventh convention in Havre in August, 1918. As reported in the *Conseiller Municipal* (Paris, Sept. 1, 1918), the theme of their discussion was that alcoholism is an evil, but that the drink trade is not. "All who live honestly by the trade in drink are deadly enemies of the devastating evil of alcoholism." They "rebuke the alcoholism that is disagreeable to all dealers. The drunkard insults, the wife threatens, the husbands break up the furniture. If alcoholism is an evil, alcohol itself is not. We must give attention to those who come to drink at our places; we must oppose those who keep questionable establishments." "Never," declared one speaker, "have the dealers intended to alcoholize the people. All the drunkards on the streets have not been compelled to be patrons of the wine seller; they often drink in places which are without license or permit. The dealers as a whole are disposed to unite with the temperance party to combat the ravages of alcoholism."

Another speaker protested against the "bad faith of those who dared call the liquor sellers 'domestic Prussians' as a serious and underserved injury because there are dealers respecting the laws, submitting to all restrictions as to the hours of sale."

VIOLATION AND NON-ENFORCEMENT OF LAW

Less than a month before this convention with these declarations of temperance desires on the part of liquor sellers, *Le Temps* (Paris, August 6, 1918), had commented on a circular issued July 18 by the Minister of Justice, Louis Nail. He had felt it necessary to issue this circular to call attention to necessity of better observance and enforcement of the law of October 1, 1917, for the suppression of public drunkenness. Particular emphasis was laid by the Minister of Justice on the fact that the law forbade serving alcoholic liquors to minors under eighteen years of age, and made provision for suppressing disreputable drink shops. He insisted on the urgency of repression intended by the law. The circular ended with these words:

Among the prohibitions of the law of October 1st, 1917, those to which I have referred are, under the present circumstances, of the highest importance from the standpoint of public health and the very future of our race. It is, therefore, necessary to recall anew to the attention of the courts and of the police the urgency of energetic repression of infractions of the law.

To this *Le Temps* added, after pointing out the fact that the ministerial circular not only implied that the law was broken but was not being enforced: "Whoever has the welfare of the future of the country at heart will commend this reminder." It commented that the Minister of Justice had indicated as needing attention two most disquieting conditions which the law of October 1, 1917, was supposed to end, viz., selling to minors, and disreputable houses, and at a time "when so many young soldiers of many nations and so many young working-men are tempted by the drink shops which swarm over our country."

Le Temps called attention to the fact that notwithstanding the plain wording of the law of October 1, 1917, for the suppression of public drunkenness, intoxicated persons were still met on the streets, and that the article of the law should be enforced which forbade giving drink to persons under the influence of liquor or admitting them to drinking places.

WAR OFFICIALS TAKE A HAND

The French Minister of Arms and War Manufactures addressed to the officers superintending military manual labor the following circular (Aug. 19), reported in *Bulletin des Usines de Guerre* (Aug. 8, 1917), which indicates trouble from drink:

I am obliged again to call your attention to the genuine danger to the National Defence involved in the spread of alcoholism among workmen employed in making war material. From all sides I receive reports of the ravages caused by an evil against which in many circumstances I have asked you to combat with all your might.

I regret to say that the measures taken have not brought the results I counted upon; numerous drink shops continue to operate irregularly, too many workmen persist in abandoning themselves to a degrading vice.

The Minister reminded the managers that during the war they were permitted, and should not hesitate, to use military authority to close immediately any drink shops whose pernicious influence was felt. "Moreover," he continued, "it is indispensable that cases of drunkenness be treated with strict severity, especially repeated offenses."

The mayors of Nantes and St. Nazaire in France issued orders concerning the sale of spirits (*La Victoire*, August 9, 1918). They said:

In view of the well known fact that the excitement caused by the consumption of alcohol is a factor in disorders and even in crimes as too frequent examples prove: The sale for off or on consumption of all spirits, liqueurs, alcoholic liqueurs as well as of aperitives other than those derived from wine of less than 23 per cent is forbidden in the cellars, breweries, cabarets or other drink shops of the Commune of St. Nazaire.

Early in June, 1918, the French quartermaster general had posted throughout the departments of Seine-Inférieure, Seine-et-Oise, Eure, and Oise an order forbidding the selling or offering to military men of all grades of alcohol (spirits) and alcoholized drinks, such as absinth, bitters, vermouth, aperitives, fruit spirits, etc. The order was issued "in the interests of discipline and hygiene of the troops whose consumption of such liquors was limited to the army ration regularly distributed." The departments named extended from the mouth of the Seine eastward to Paris and north of Paris. An appeal was made to the civilians to aid in combating alcoholism in all its forms. "Everybody ought to understand that everything likely to diminish the material or moral force of our army would be, in the presence of the enemy, a veritable crime against the National Defence."

Within the army zone indicated the retail sale of certain liquors even to the civilian population was forbidden in cafés, saloons, smoking rooms and all places classed as drink shops. Excluded from the prohibition were cordials of not more than 18 per cent alcohol and their imitations, aromatic wines prepared without the substances containing essences, sweet liqueurs of not more than 23 per cent. alcohol from fresh fruits, sweet natural wines.

Le Temps quoted by *Gazette des Ardennes* (June 18, 1918), commending the order and the reasons given for it commented: "But this is not the first time that the military authority has tried to check alcoholism. Unfortunately it runs up against resistance which echoed even in Parliament. The question is whether the published resolutions and instructions will amount to anything more than excellent intentions destined to remain platitudes. When we see how the recent law for the suppression of drunkenness is enforced we can not avoid certain apprehensions."

Referring to the appeal to the patriotism of the people to help combat alcoholism, *Le Temps* remarks that this means that "among other ill-omened influences must be treated weaknesses that involuntarily are aids to the enemy. Many people believe they are kind in permitting evasion of the prohibitions. It is not too much to say that 'everything likely to diminish the material or moral forces of the army would be in the presence of the enemy a veritable crime to the National Defence.' This is true not only for the inhabitants of the four departments named. The struggle against alcoholism is not a local but a national question. The army of protection includes all Frenchmen whether or not under the colors; the future of the race is at stake."

A hint as to how such a law is evaded is given with sarcastic comment by *Eclair* (June 5, 1918): "Respecting the rules the café managers are not offering the smallest glass. But cups of a pure white color are placed at an understood signal before customers who are hard hit by a rigid rule. To the watching officer the cups contain only a hygienic drink, tea, camomille or coffee. There is no suspicion that they hide the forbidden drink, and if there is a suspicion, it is a matter of indifference. The main thing is not to obey the law but to appear to obey it. To drink alcohol in a glass would be rebellion; to drink it hidden in a cup is deference. We propose that the cups filling this pleasing function be engraved 'Respect the Law.'"

Other orders restricting the sale of liquor in France in 1918 were those of several mayors in the department of Loire requiring all drink-selling places to remain closed till further orders with the exception of places furnishing meals which might be open from twelve to one o'clock, and from six to seven in the evening, but only on condition that they would not serve spirits (*Le Populaire*, Nantes, May 27, 1918). Vice-Admiral Moreau, maritime prefect at Brest, formally forbade, according to *L'Heure* (Paris, April 26, 1918), the use of alcohol (meaning probably spirits) to all French or foreign soldiers or sailors.

A French official order of September, 1918, (*La Presse Coloniale*, Oct. 24, 1918), forbade owners of drink shops to sell any alcoholic beverages whatever (including wine, beer and cider) to natives of Northern Africa either military or traveling.

After the armistice was signed, a printed ordinance by Brigadier General W. W. Harts of the American Army, was posted in the bars and cafés of Paris (*Le Temps*, November 28, 1918), as a reminder that all dealers were forbidden under penalties to serve alcoholic liquors such as gin, whisky, brandy, cocktails, etc., to American soldiers.

Vice-Admiral Rouyer, maritime prefect at Cherburg, because of the criminality there (*La Victoire*, March 4, 1919) has issued an order forbidding the sale at retail on the premises of strong alcoholic drinks in the commune and maritime district of Cherburg.

The prescription applies to both military and civilian population.

The measures taken by the French and other authorities for reducing drunkenness in the army are apparently not wholly fruitless. Commenting on a sentence imposed on a French soldier for assaulting, while under the influence of drink, a dealer who refused to sell him more, *Intransigeant* (Paris, June 5, 1918), remarks that occasions for punishment for drunkenness had happily greatly diminished in the course of the four years of war, and that the younger classes of men called into service drank less and less alcohol.

* * *

THE SIZE OF THE FRENCH ALCOHOL PROBLEM

THE annual per capita consumption of alcoholic drinks in France as estimated by Dr. Johannes Gabrielsson (1915) from the period 1906-1910 was as follows:

Spirits	8.82 litres
Wine	144.00 litres
Beer	71.66 litres
In terms of pure alcohol	22.93 litres

Estimates of the losses due to distilled liquors alone were compiled by Dr. Frederic Riémain, Secretary of the French National League Against Alcoholism. We shall not repeat here his reasons for the various figures as they have already been published in the *JOURNAL* (Oct., 1916):

Price of distilled liquors consumed	1,200,000,000 fr.
Working days lost by drunkenness	1,930,000,000 "
Mortality from tuberculosis of alcoholic origin	400,000,000 "
Loss of working time in producing spirits	360,000,000 "
Expense of treatment and standstills	70,000,000 "
Expense of crime, suicide, etc	10,000,000 "
Total	3,970,000,000 fr.

This does not take into account at all expenses connected with wine and beer. The total was greater than the average pre-war national expenditure for taxes.

POPULAR WAR PROTESTS AGAINST THE WASTE OF FOOD AND LIFE IN DRINK

A MEDICAL correspondent of *Le Droit des Peuples* (Paris, April 12, 1918), thus portrayed alcoholism as the enemy of France:

"As I write, a new German offensive is opening and the great sacrifice is beginning again for our soldiers. They are offering life to protect our lives, our liberties, our welfare. How shall we show them our gratitude and affection?

"To call them heroes is not enough, nor is it sufficient to increase their pay, to diminish the terrible inconveniences of trench life, to spoil them when on leave, to give them good care when wounded, to pension them when disabled, or to reassure them as to the future of their families.

"They should have a higher or more profound satisfaction; they should know that their sacrifice is not in vain, that the country which they guard at the cost of such suffering is not going slowly to commit suicide by its vices and heedlessness.

"There is in France a great slayer of men a thousand times more terrible than the Gotha and the 210—alcoholism! It makes much less noise, and I have never seen a person take to his heels at the sight of a drunken man. But if we were reasonable people, we should be appalled at the increasing tide of alcoholism which the war has not checked.

"In 1831 France was consuming on the average 2½ litres of alcohol per capita; in 1895 the consumption was 15 litres; at the outbreak of the war about 25 litres. This expresses itself by enormous decreases in the birth rate, by a large proportion of weak children, idiots, epileptics, increasing tuberculosis, insanity and criminality, to say nothing of the mortality, aggravation of disease and wounds due to alcoholism which cannot be put into figures."

The writer then calls attention to the fact that in 1830 the alcoholic consumption of Norway and Sweden was approximately that of France today, and that under measures employed in those countries the consumption fell until in 1902 it was at about the figure of that in France in 1831. In Sweden, he declared, there were in 1830 one hundred seventy-three thousand distilleries for four million people; today, not over three hundred, and but one drink shop to every 13,450 inhabitants. "When one thinks," he exclaims, "that Deputy Siegfried could not get Parliament to limit the number of drink shops to one to 300 inhabitants, one is not proud of one's country!"

Public opinion, he recognizes, must lead governmental action. "To attack the power of the seller of poisons, requires the moral forces of the strength of the nation." There must be self-information and popular education as to the evil effects of alcohol, and an effort "to substitute true human joys for the bestial pleasure of drunkenness."

Bread rather than alcohol was the demand of the following appeal of the Central Labor Union addressed to the people of Rennes (*La Bataille*, July 24, 1918):

BREAD—OR ALCOHOL?

There were distilled in 1916, barley, 137,582 quintals; rye, 158,696; oats, 1,776; corn, 668,981; wheat and rice, 897,885. Total, 186,492,000 kilos of food grains.

And we have 300 grams of bread!

They answer: This alcohol is partly used for National Defence.

Very well!

But there is alcohol enough that could be requisitioned from the distillers, home distillers, liquor dealers, and even in bourgeois cellars.

This would be less poison for the stomachs and more bread for the workers.

Formerly, the children of the alcoholics were deprived of bread.

Today, these and others lack bread because of alcohol.

Formerly, there was pestilence.

Today, there is alcohol.

Four years of war have done the country less harm than alcohol has done in forty-four years of peace.

And the monster continues its work of destruction with impunity.

The people at the front and at the rear are doing their duty; let cities, parliaments, officials do theirs.

Three hundred grammes of bread? All right!

But in the name of the common people, not another drop of alcohol.

A similar protest from the Nantes Central Labor Union (*Le Pays*, Paris, May 28, 1918) declared that certain hospitals had been restricted in the use of alcohol for antiseptic and surgical instruments' purposes and complains that in spite of this, "alcohol continues its misdeeds in the family and society with 90,000 alcoholic insane in the hospitals; 120,000 deaths from tuberculosis annually due to intemperance. The appeal concludes: "300 grams of bread!!! Three days without meat!!! but for the welfare of the country we want seven days each week without alcohol."

The Union of French Women against Alcoholism addressed to the Chamber of Deputies a petition urging the suppression of the use of alcohol for beverage purposes as a measure of conservation, national defense and public welfare:

"Does not this terrible war give us the right to long for a France worthy of our dead? To the cruel losses imposed by the enemy shall we add others? Alcoholism is increasing in gigantic proportions; it is reaching the women who must be the life-givers; it is reaching the child, the hope of the race. . . . France must be dealcoholized before it is too late. Do not hesitate in this tragic hour of our history to appeal to the patriotism of us all. Give us the only efficacious remedy, suppression.

"It is the duty of every Frenchman to accept cheerfully the restriction upon bread. . . . But at the very hour when mothers are anxious over being obliged to limit the appetites of their children, does the public know that alcohol has taken from us in the two years 1915-1916 food substances

to the amount of 293,049,700 kilograms of flour and grains independent of products commonly used: fruits, marcs, lees, ciders, molasses, beets, etc.? To stop such waste, these precious grains should be conserved for food at all cost. Since considerable amounts of alcohol are needed for munitions, industry, and medicine, in order to have bread we should go without the useless and harmful beverage alcohol.

"We demand more than ever the suppression of alcohol as a beverage."

* * *

SOCIAL REVOLT AGAINST LIQUOR POWER AND CAPITAL

THE French press is not silent concerning the need for action in reducing alcoholism, especially that portion of it that looks for social readjustments and the rise of the masses. Naturally the power of the capitalized liquor interests gives a handle for attack upon them as representatives of capital.

La Victoire, the journal of M. Clemenceau, publishes (Jan. 26, 1919) a signed letter recounting conditions in Brittany especially among women which seems to the correspondent to dash the hope that if women were given the ballot they would help overthrow alcoholism. Still worse are they for the future of France as a nation. Twenty years ago, says the correspondent, a former teacher, the women in Brittany seldom became intoxicated—only on great occasions. "But the number of these women drunkards has rapidly increased and the occasions for drinking multiply proportionately. . . . The mothers teach the children to drink. . . . If these conditions continue to spread, France is done for. [See footnote, page 13.] There is no hope for improvement except by a total re-education of the country. This is the invariable conclusion at which one arrives. Our victory will save us only if an immense new effort over ourselves makes us worthy of it."

Le Rappel (Paris, Jan. 28, 1919) inquires: "France has conquered Germany, will she conquer her own liquorocracy?" It relates that decrees by the mayors of Nantes and St. Nazaire forbidding the sale of liquors containing more than 23 per cent. of alcohol were protested by the liquor interests, which demanded repeal of the orders. The decrees were sustained and officially approved by the prefect of Loire Inférieure and the Minister of the Interior.

"It is impossible," says *Le Rappel*, "that this example will not be followed, and that in France where the people have just shown so much military courage their representatives should lack civic courage."

On this point of civic courage a correspondent of *L'Auto* (Paris, Jan. 27, 1919) is not optimistic. Referring to the coming of American representatives of the Anti-Saloon League to confer with the French National League Against Alcoholism, he comments somewhat spicily on the naivété of America where all alcoholic liquors have been prohibited.

"But what headway are our Americans going to make when they learn that those who hold in their hands the solution of this question are our excellent members of Parliament who never in their lives have ever dreamed of preventing

France from debasing herself, for the excellent reason that they owe their elections to the liquor dealer, a hair of whose head they would not injure for fear of not being re-elected."

A correspondent of *Le Populaire* (Jan. 30, 1919) declares that it is absolutely impracticable for any single political party be it Socialist or what not to take up alone what is being called in France "the sacred union against alcoholism." Every party has its special aims "but the most devoted patriots carefully avoid offending the home distillers of the East and West." The writer warns, however, that something must be done. "The eight hour day, the forty hour week will soon be accomplished. If the masses are going to get rid of the fatigue of the factory only to run the risk of falling into the painful abjectness of alcoholism it is not worth the trouble to talk about educating them or about hopes of social justice. The great bloodshed of the war makes the ending of alcoholism in France a question of life or death for the race. But—and this fact alone shows the formidable power of the evil—only the union of all parties against alcoholism can accomplish the necessary reform."

A measure was introduced in the French Senate by the Government (*Le Temps*, Feb. 8, 1918) designed to control the sale of spirits released from war purposes so that the interests of the producers should be safeguarded and the public protected from a flood of low-priced spirits. During the debate M. Henry Chéron, warmly applauded, begged France "which had the heroism to get rid of the Boche, not to be less courageous against the hideous domestic enemy which brings into the family material and moral ruin."

* * *

THE TEMPERANCE MOVEMENT IN FRANCE*

THE temperance movement in France is comparatively recent, wrote Dr. Legrain* in 1904 in a review of work up to that time from which many of the following facts are taken. Throughout the entire world this land of the vine has been reputed as knowing only the drunkenness that comes from wine, drunkenness quite as pernicious as that from spirits, though attracting less attention because it seems to be less scandalous; but its effects are more insidious.

Alcoholism was first talked about towards 1860. Then it had spread through Normandy and Brittany, the land of cider. About 15 years afterward it had invaded the center and the Midi, the wine regions. Here it was absinth, particularly, that caused the ravages. This explains why the temperance movement in France was so late. The slowness of its progress is due to the notion that still prevails among the French, that wine is an antidote for spirits.

The first phase of the anti-alcohol movement was from 1872 to 1895, after the Franco-Prussian war, when the most impartial observers were obliged to recognize that alcohol had played a sinister rôle, and a strong movement of revolt set in against it. The French Temperance Society then founded and included among its members some of the most notable philanthropic scientists, such as Rousset, Bergeron, Lunier, and later Magnan, Motet and many others.

*Internationale Monatsschrift zur Bekämpfung der Trinksitten, September, 1904.

This society made the first attempt to impress the French with the idea of temperance, but it had no definite standard of temperance, and did not interdict the use of spirits if they were not "*abused*."

The society did a good deal of work during a period of about twelve years, held two congresses in connection with world expositions, 1878 and 1889, published the *Journal de Tempérance*, and a leaflet called "The Good Counsellor" (*le Bon Conseller*), and instigated several scientific works on alcoholism. It was back of the Rousset law against drunkenness (1873) and later tried to get some liquor reform legislation; but it was powerless against the nefarious law of 1881 which gave freedom to the cabaret.

While the flood of alcohol continued to rise, this society remained aloof from the people, a kind of aristocracy of scientists and philanthropists and did not gather in the common classes. This was no doubt the reason that public opinion was not sooner moved against alcoholism. From about 1888 to 1894, the end of the first phase, the society itself ceased to work.

This period saw the advent of another French society, the International Temperance Society of the Blue Cross, founded first in Switzerland for the rescue of drunkards by the practice of abstinence and the aid of religion. That was the first mention of abstinence in France, and then it was not as an end, but only as a means. It was a cure, but not a preventive. It was to save the person who had fallen, but for others the Blue Cross only preached moderation.

The Blue Cross rendered a great service in this first period, by popularizing the idea of temperance, more than the French Temperance Society, by its meetings, conferences and popular publications. All of the MacAll mission halls were well attended, but, the exclusively religious character of the meetings, and their limitation to the Protestant faith, was an obstacle to its development.

The second phase of the temperance movement began in 1895. At this time the Society Against the Use of Spirituous Drinks was founded, on the principle of abstinence instead of simply moderation. It took the question from the confines of the small chapels and brought it before the masses. For the first time the subject appeared in the large newspapers. The Society appealed for its membership to all who were ready for the principle of abstinence from spirits, saying nothing, then, about beer, wine and cider. Under the energetic leadership and personal devotion of Dr. Legrain the society grew, from 1895 to 1900, to a body comprising about 1,600 local branches and 60,000 members.

The idea of limiting abstinence to spirits was not a new one. Temperance history in all countries shows it to be the transition stage between moderation and total abstinence. By 1895 most of the countries that had maintained a temperance movement for a long time had passed the stage of limited abstinence, which is the standard in the countries less advanced, such as France, Belgium and some others.

By 1900 the general interest in France had become such that about 600 independent societies, such as The Association of the French Temperance Young People, The Federation of the White Cross, The Railroad Men's Anti-Alcohol Society, societies in schools, in universities and among teachers, one among Catholic priests, were formed. Members of the French Anti-Alcohol Union were

gained in the army and navy, and in the colonies, particularly in Madagascar where Gen. Galliéni, who became a total abstainer, was then stationed. The Seventh International Congress Against the Abuse of Alcoholic Drinks at Paris in 1899 was organized by this society.

After this Congress total abstinence societies were founded in France, one among women and one among educators.

The third phase of the temperance movement began in 1902. The old temperance society had revived and was ready to consider a fusion with the Society Against the Use of Spirituous Drinks which had extended its activity so widely among the people. The older society advanced its standard somewhat, to the point of recommending abstinence from spirits. It called a Congress, invited all the other societies, and succeeded in 1903 in uniting them all with it under the new name of the *Ligue Nationale contre L'Alcoolisme*.

This National League Against Alcoholism which is non-sectarian and non-partisan has combined efforts for legislative reforms with popular education, has pushed local organization, circulated literature and done a large amount of work among the officers and soldiers. It secured the prohibition of absinth, circulated petitions for the suppression of spirits during the war, and secured a measure of success in the law limiting private distilling to ten liters for personal and family consumption. In a great campaign in 1916 it secured extensive coöperation from the women and labor organizations. Great meetings attended by thousands passed resolutions denouncing the ravages of alcohol and calling upon the government to stop the waste of foodstuffs and to suppress spirits. Film programs are being used to create interest and educate in the facts.

The films show not only pictures but sentences from well known Frenchmen like the following:

"Alcohol does not warm one. It is very dangerous to use it in cold weather."—Vallot, Director of the Mont Blanc Observatory.

"The alcohol which threatens to spoil the very sources of national life is not less dangerous than the external enemy."—Léon Bourgeois, President of the Council.

"Alcohol delivers the people over to every kind of oppression, misery and shame."—Anatole France of the French Academy.

"Alcohol slays millions of Frenchmen who would be worth billions to the treasury."—Auguste Isaac, Honorary President of the Lyons Chamber of Commerce.

"We must solidly unite all anti-alcoholists to stop the ravages of alcohol."—Ferdinand Buisson, President of the League of Human Rights.

"There must be a national coalition against alcohol, the greatest enemy of the nation."—Louis Dubreuilh, Secretary of the Socialist Party.

"Alcohol, this deadly poison to the French nation."—Alex. Ribot, President of the Council.

"If we do not suppress alcohol it will destroy us."—Victor Cambon.

The vigorous work of the League during the war brought upon it attacks and misrepresentations from the liquor interests, one charge being that the League's

efforts against alcoholism were reactionary and unpatriotic. The League appealed for endorsement to prominent national leaders, and obtained very strong commendations. One of these was from M. Clemenceau, who wrote, December 23, 1917, to the President of the League:

"I am very happy to prove to you again the great interest I have taken in the work which you and your associates have conducted with so much ability and devotion, in allotting you an extraordinary appropriation of 5,000 francs.

"I take this occasion to express to you my satisfaction and my thanks for the movement you have conducted among our soldiers and the moral and material aid you have given to our officers and our physicians in their care of the health of the troops and in the maintenance of discipline in the army."

Before the war France had in addition to *La ligue nationale contre l'alcoolisme*, a Catholic Anti-Alcohol Society of the White Cross with about 25,000 members, the Federation of Anti-Alcoholic Workmen (16,000 members), the Railway Men's Temperance Union (55,000 members). These were temperance, not total abstinence societies. The latter had a relatively small membership. Among them were the French Abstinence Federation; the Blue Cross (partly abstinence); the White Ribbon, a branch of the Woman's Christian Temperance Union; the Good Templars, and the Gold Cross, a Catholic organization.

Dr. Legrain published a monthly journal, *Les Annales Antialcooliques*, devoted to the propaganda of the radical ideas of total abstinence from all alcoholic liquors and prohibition. Its publication, interrupted by the war, has now been resumed.

The emergencies of the war brought out other anti-alcohol forces, among them the Union of French Women against Alcoholism, which has issued strong appeals to the government and to the women of France to rise against alcoholism.

"*L'Alarme*," whose honorary head is President Poincaré and president, Jean Finot, labors for suppression of spirits. Wine it proposes to save and has tried to cause a cleavage in liquor interests by showing that it would be an advantage to the wine producers and sellers to get rid of spirits. A service of *L'Alarme* was publication of facts showing how drink was hindering the conduct of the war.

"It must not be thought that French temperance workers have abandoned their struggle against alcohol," says *Ligue de la Croix* (Mar. 8, 1919). "On the contrary, during the world war they have carried on the good fight better than ever, have redoubled their zeal and conducted a campaign which does them the greatest honor. Their opponents are obliged to recognize that their skilfully conducted fight has done harm to alcohol; they have leaders of great vision, talented writers and orators. A large number of meetings and conferences have been organized at Paris or in the provinces by the National League against Alcoholism. An unexpected coöperation is about to begin which will permit speeding up the war against alcoholism. It is again from the Americans that aid is going to come. Now that prohibition of alcoholic drinks has been adopted in the United States, these astonishing champions of a good and noble cause have decided to bring effective aid to the anti-alcohol struggle in France and Europe. . . .

"The French Catholics have decided to enroll in the army of temperates.

They have displayed great activity and are beginning very well. Mgr. Baudrillart, rector of the Paris Catholic Institute, has put at the disposition of the conferees the great public lecture hall of the institute for a series of three conferences and desired to preside himself over the first conference, January 8.

"The third lecture was given in a crowded hall on the subject 'Catholics against Alcoholism.'

"Several other conferences have been organized: one on January 15 for the pupils of Yssy Grand Séminaire, on the rôle of the Catholic clergy against alcoholism. On January 23, the free teachers of Paris heard at the office of Catholic Primary Instruction an address on the rôle of the Catholic teacher against alcoholism. January 29th an address to Catholic students dealt with their duty in face of the evil of alcoholism.

"In a few days the teachers of the institutions for young girls conducted by the Daughters of St. Joseph will be invited to listen to a presentation of the campaign against the national poison.

"Outside of Paris anti-alcohol effort has been intensified by the invaluable aid of Abbé J. Bordron who having proved the terrible evil that alcohol does to the family, the race, and religion feels it his duty to combat it.

"Beginning October 1, 1918, he has already visited eleven departments. Everywhere he was cordially welcomed by the bishops who were all seriously concerned and disquieted by the ravages of alcoholism, and all desired to have anti-alcohol action seriously and practically organized in their dioceses. All have agreed to preside over a general meeting to mark their entrance upon the campaign against alcohol; to organize a meeting for children, and popular sessions to interest young people and their families in the struggle against alcohol. These meetings can have immense influence and fruitful results.

"Good news comes also from restored Alsace-Lorraine. Abbé Charles Loth, president of the Catholic Anti-Alcohol Society of Strasburg, has asked to have this affiliated with the White Cross Society. There are similar groups at Mulhausen, Schlesstadt, Colmar and Metz. A congress of Catholic temperance workers should meet soon at Strassburg.

"Before this rising of defenders, do we not see the dawn of the happy day when everywhere the manufacture and sale of alcohol will be prohibited in the same manner as poisons?"

The Union of French Women against Alcohol publishes (*La Française* March, 1919) a victory appeal headed "War on Alcohol." It declares:

"The German is defeated; the happy hour of deliverance has struck.

"But after the bloody struggle, there remains another that every French woman conscious of her duty would wish to carry through with equal courage.

"Women of France, let us finish the splendid victory, working for the uplift of the race. Let us fight the poison that debases and kills—Alcohol.

"Let us bring to this noble task on which the future of the country depends, all our courage, initiative, persevering purpose.

"Thus, like our dear soldiers, we shall have deserved well of our country."

A commission on alcoholism appointed by the National Committee on Social

Hygiene has been considering suggestions from various sources as to anti-alcohol measures to be proposed. At a meeting, January 9, 1919, it received the proposal of Jean Finot for taxing up spirits-shops and taxing down shops selling fermented and non-alcoholic drinks. The editor of *Les Annales Antialcooliques* dryly remarks that a shop selling wine, an alcoholic drink, "will never be considered a centre for morality, and drunkenness from wine is no more decent than that from spirits. The idea that wine is an antidote for alcohol is one of the dangerous jokes that has lived too long."

After discussion of M. Finot's proposition the Commission adopted the following conclusion:

Whereas, the fermented drinks (wine, cider, beer) are alcoholic drinks,, are not hygienic drinks and can be considered less harmful only if consumed in a very small quantity and with meals,

Resolved:

1. That spirit shops should be *very heavily* taxed;
2. That shops not selling spirits but selling the alcoholic beverages called hygienic (wine, cider, beer) be *less heavily* taxed;
3. That shops selling neither spirits nor alcoholic beverages called hygienic (wine, cider, beer) except at meals be *very lightly* taxed,
4. That establishments selling only soft drinks without alcohol be *totally free* from tax. .
5. That shops selling tobacco, matches, postage stamps, etc., be completely separated from the sale of alcoholic drinks (spirits and so-called hygienic drinks) whatever their alcoholic strength may be.

THE FUTURE OF WINE IN FRANCE

At the present time France imports more wine than she exports. In a report to the General Congress of Civil Engineering, last year, M. G. de Jaer stated that the production of wine before the war had reached from sixty to seventy-two million hectolitres annually as compared with thirty millions in 1870; that seven million hectolitres were imported and only three millions exported. His advice was that France should turn its attention as rapidly as possible to producing non-alcoholic beverages and industrial alcohol. The exportation of wine was already decreasing and would fall off still more in the future owing to the development of vineyards in Tunis, Algeria, Morocco, Chili and the Crimea, and to the increase of sobriety and prohibition in Scandinavia and North America. If production were continued on the old scale, it simply meant increased consumption of wine by the French people themselves, and this would be a distinct disadvantage in commercial and industrial competition with other countries "where temperance is not, as in France, an object of ridicule." He thought attention to increasing other uses of the grape would bring large and helpful expansion of the foreign market.

PRESENT INTERESTS IN SWITZERLAND

WHEN a national organization of abstaining women in Switzerland was asked to give their opinions as to what they considered the most important work for the cause for their local organizations to engage in, various subjects were mentioned, but the one that appeared to appeal most forcibly to the delegates was popular education against the employment of fruits and grains for the production of alcoholic liquors. It was decided that women's organizations of all kinds should be interested in non-alcoholic preparation of fruits.

A matter which stirred up a good deal of attention in connection with the wastage of food was an appeal made to President Wilson by some of the temperance organizations, to use his influence to stop the use of food substances for the production of alcoholic liquors in Switzerland, as well as upon the entire European continent as long as America had to be called upon for the food supplies. "We cannot expect the American people," said the telegram, "to spare food for us in order that some of it may be used by us for the production of alcohol. America is the cradle of the abstinence movement and the Good Templar Order, and we would cordially greet the aid of our great sister republic in our struggle against alcoholism, the greatest enemy of mankind."

Some protest against the telegram was made on the ground that it was calling on outside help for work they ought to be more earnestly engaged in themselves. "We have something better to do," said one objector, "than to send out such despatches to the world. We have to organize our abstainers, and particularly our Good Templars, for political action."

That eventually has been done, and political candidates are asked to state their position on the alcohol question.

Four special questions that have been put up to them are:

1. Are you prepared to stand for the prohibition of the use of materials suitable for food for the production of alcoholic drinks until the food supply returns to normal?

2. Are you ready to vote for alcohol legislation that will treat alcohol first and foremost as a social poison, and relegate all economic and capitalistic considerations to second place and put public health and public welfare exclusively in the foreground?

3. Are you prepared to advocate that in future communities shall decide whether they shall have selling places for alcoholic drinks, and if so how many and that this last question shall be determined by the qualified voters of the community?

4. Are you willing to grant that all local traffic in alcoholic liquors shall be conducted by the communities permitting it in order to eliminate private interest and the motive for enlarging sales?

Organizations of abstainers prepare and keep standing lists of candidates whose attitude on the alcohol question is satisfactory.

The Swiss Abstaining Teachers Association has passed its twentieth birthday. It is increasing in numbers and local branches and has the satisfaction of seeing the profession coming little by little to their side of the cause. The organization publishes two papers, and last year one of its committees prepared a book on methods of instruction for the use of teachers.

From the successful conduct of alcohol free restaurants, the Swiss women workers for temperance have gone on to the promotion of non-alcoholic community centers. Prof. Orelli, who has been the president of the temperance hotel movement, took the initiative in the new movement. The plan is to have such a social center in every community. Even rural communities may have buffet cars for dispensing non-alcoholic drinks.

Some years ago there was established in the Bernese Jura in Switzerland an organization for rescuing to a chance for real life abandoned children, principally those of drunkards. It is called "Petites Familles" and is designed to give these children the care and education that their unworthy parents prove incapable of giving them. From eight to ten children, six years old or under, are sheltered in each "Little Family" under the intelligent care of a foster mother, and every effort is made to develop their good qualities to predominance over poor hereditary tendencies. Life in the open air gives vigor and improves the general condition of these small candidates for rickets and tuberculosis. A country house in the foothills of the Jura was put at the disposition of the first "little family," and other local committees are being formed in Switzerland to promote the plan.

* * *

BELGIUM BEGINS PROMPTLY ON ANTI-ALCOHOL MEASURES

THE text of the bill concerning alcohol introduced in the Belgian Chamber by M. de Ponthière authorizes alcoholic liquors, beer, wine and cider containing less than 20 per cent of alcohol (*La Nation Belge*, March 2, 1919). The bill provides that no undenatured alcohol can be delivered except by State Administration, which also has sole authority in the matter of the transportation, sale, price and state revenue. The quantity of undenatured alcohol to be produced is to be divided among distillers proportionately to the amount of denatured alcohol produced by each.

Violations of the proposed law with respect to the distillation, transportation, sale, purchase or possession of alcohol, entail confiscation of the alcohol itself, a fine equal to twenty times its value, and imprisonment from eight days to a month.

All importation of alcohol of more than 20 per cent strength is forbidden.

To compensate liquor sellers it was proposed that 50 per cent of the net products of the sale carried on by the Government of non-denatured alcohol be divided for ten years among the sellers in business December 3, 1918, or their assigns.

La Nation Belge commenting on this and the other bills proposed concerning the liquor traffic, expresses the hope that a practical national law will result from the parliamentary discussions, but evidently does not favor radical measures.

"It is necessary to combat alcoholism; to kill it if possible and with the same blow to kill an evil more deadly than war itself. It will not be a question of imposing total abstinence throughout the kingdom. Let us think also of the interests of the public treasury." The hope is expressed that the question may be solved without its becoming a party issue.

* * *

GERMANY IN WAR TIME

SEVERAL factors have combined for the promotion of sobriety in Germany the past year.

Beer production under the monarchy was reduced to 10 per cent. of its former dimension on account of food scarcity, and the revolutionary authorities reduced it to five per cent.

Wine is unattainably dear.

Spirits are to be had only in minimum quantities. Innkeepers are allowed only a very small supply.

The result of this enforced sobriety is shown in markedly fewer cases of alcoholism in the hospitals.

A spirit monopoly created by the Reichstag provides for the importation of one-tenth of the alcohol but it has virtually amounted to only a hundredth part.

The revolution, which dates from November 9, 1918, has not been favorable to the liquor interests. Numerous anti-alcohol orders have been proclaimed both by the Workmen's and Soldiers' Councils and by the local authorities. It appears that the return of the army was not accompanied by excesses, and in general, the excitement of the revolution appears not to have been fanned by alcoholic excitement.

Wider opportunities for work are opening before the anti-alcohol organizations. It may be that the new Germany will be an anti-alcohol Germany.

One result of the war upon Germany, says the *Kölnische Zeitung* (Jan. 31, 1919), is "a happy influence upon the diseases due to alcoholism."

A Berlin physician writes in *Vorwärts* (August 17, 1918), that what the most daring anti-alcoholist never dared to dream has already come to pass. The idea of total abstinence has taken root in many circles. Whatever one's attitude, he says, toward the alcohol question, it must be admitted that the total abstinence or even moderation that hundreds of thousands of Germans are now practicing as a result of the war conditions, is a source of blessing for the people in moral and in intellectual directions. Paradoxical as it sounds, the war which has deprived so many thousands of families of their head is liberating thousands from the grip of alcohol, through the conditions it has brought about, and is restoring them to their families.

The political and industrial organizations of the workingmen have placed the battle against alcoholism on their banners because only sober and clear-

headed workingmen are in a position to fulfill their task of bringing about social and intellectual betterment. It is a real pleasure to the physician making sick calls in workingmen's homes, this medical correspondent records, to see how much more comfortable and orderly they have become as a result of sobriety.

The falling off in the number of cases of alcoholism in the Berlin hospitals after the outbreak of the war was remarkable. The following table showing the percentage of admissions to the nerve clinic of a charity hospital in Berlin on account of alcoholism was published by Dr. Bonhoeffer in a journal of psychiatry and neurology in June, 1917, and reported in the Munich *Neueste Nachrichten* (September 23, 1918):

YEAR	PERCENTAGE OF ALCOHOLISM. CASES AMONG ADMISSIONS.	
	MEN	WOMEN
1907	20.6	3.2
1908	17.8	2.7
1909	18.9	2.1
1910	18.6	3.1
1911	16.8	2.1
1912	13.7	2.6
1913	12.3	2.9
1914	14.0	2.8
1914 (until August).....	6.4	1.4
1914 (remainder of year).....	7.2	1.3
1916	3.3	0.0

The development of alcoholic production by the chemical processes of reducing calcium carbide was hampered by the law makers under the monarchical regime, because it would interfere with the agrarian producers of alcohol from potatoes.

A writer in the *Frankfurter Zeitung* protests against the uneconomical legislation which favors the wastage of food material instead of the immense saving that might be affected by using the potatoes for food and producing alcohol from wood and minerals. The agrarian landholders will probably have less influence under the new German government and the interests of the people will not be sacrificed for their enrichment.

German disappointment over the Ukranian grain resources was well known. The Ukranians it will be remembered refused to let the grain go. The food resources to be expected had been painted in glowing colors, and when they failed to materialize the failure had to be explained in some way to the people. The Paris *Agence Economique et Financière* (Paris, May 6, 1918), stated that a war correspondent of the *Kolnische Zeitung* pretended that the grain was not available because home distilleries were established everywhere which used up the grain for the production of spirits that sold at extremely good profit!

The temperance societies of Suabia are protesting against the imposition of taxes on non-alcoholic drinks, believing that in the interest of the public health these should be encouraged by freedom from tax.

The question was recently asked of the British Colonial Secretary (*Depeche Coloniale*, Dec. 13, 1918), whether in the peace negotiations concerning the future of the German African colonies, the British government had decided to raise the question of interdicting the importation, sale and consumption of commercial liquors destined for the natives of Central Africa, that is, the regions lying between Morocco and Egypt on the north to the frontiers of the South African Union.

Mr. Long, Colonial Secretary, replied that the English government did not foresee the possibility of joining that question with that of the future status of the German African colonies. British authorities have nevertheless declared that they would propose an alteration of the Brussels Act of 1890 necessitated by present circumstances which would be effectual in giving satisfaction to the different wishes with a view to restricting or of totally suppressing the importation of commercial alcohol into Central Africa.

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INDIA AND PROHIBITION

RECENTLY in the Imperial Legislative Council for India, the *Alliance Press Agency* (February, 1919) states that the Hon. Roa Bahador N. Sarma moved a resolution recommending that the Government should accept and declare total prohibition of the use of all alcoholic and intoxicating liquors and drugs to be the aim and object of its policy, and so direct its administrative methods as to achieve the end in view at an early date. When Mr. Sarma rose to speak on the resolution a number of the European members left the Chamber, and those remaining are said to have appeared plainly bored. When the balloting was finished the resolution was declared defeated by 33 votes to 20, and 31 of the hostile majority were said to be Britons. It is to be hoped that English and other races will not force alcohol upon India as in the old days opium on China, against the formal protest of the native representation in the Indian Government.

* * *

DRINK MEASURES IN REVOLUTIONARY COUNTRIES

THE revolutionary government of *German Austria* has taken a series of measures to limit or suppress the use of alcoholic liquors according to *Ligue de la Croix* (Jan. 18, 1919). The action was taken on the ground that in view of the misery and restless conditions of the people, the smallest immoderation in the use of alcohol might have unfavorable consequences. *Humanite* (Paris, Dec. 6, 1918), reported that a despatch from Vienna declared that the sale of alcoholic liquors would be prohibited not only on election days but on the preceding and following days.

One of the first acts of the revolutionary *Hungarian* government (*Le Feuille*, Geneva, Dec. 12, 1918) was to prohibit the sale of alcoholic liquors. This was modified in the large cities to permit the restaurants to serve three decilitres of wine or beer per person with meals from noon to three o'clock in the afternoon,

and from seven to eleven o'clock in the evening. The order appears to have given immediate occupation to the police to see that the permitted hours were observed. Keepers of restaurants and cafés asked the government still further weakening, but they were told that on the contrary there would be a stricter enforcement (*Neues Wiener Journal*, Jan. 4, 1919). A report of January 12 represents the restaurants as serving nothing alcoholic on the tables. "No rum is served even for tea," complained a correspondent. At bars where formerly whisky and brandy were served one could get nothing but tea.

The Stockholm correspondent of *Echo de Paris* (Jan. 28, 1919), reported that travelers coming in from *Russia* declared that drunkenness was spreading in the Red Army in frightful proportions; that often the leaders themselves sold denatured alcohol to the soldiers. Numerous cases of drunkenness had been observed in Soviet circles. The Soviet of Petrograd published in the press a resolution reproaching members holding high places in the Soviets for giving themselves up to drink, disorganizing labor and compromising their prestige. The resolution threatened drunkenness with capital punishment and demanded that members of Soviets should watch and report one another to the Extraordinary Commission.

THE sale of spirits was prohibited throughout *Poland* while the elections for the Constituent Assembly were going on according to *Intransigent* (Paris, Jan. 25, 1919).

* * *

1919

Not now, the new Atlantis of our dream,
 But soon—dear, tired people everywhere!
 The sun has pierced the smoke: the plow will gleam,
 The grain will climb again upon the air.
 The honest days will bring the work that heals
 Back to the village and the streets of stone.
 There will be sweeter music from the wheels,
 For hands that make will be the hands that own.
 Lead on, brave spirits! Not until we fight
 The battle of the mind will life be wise.
 Until we are no more afraid of light,
 We can not bring our Heaven from the skies.
 O I have heard the clear, new bugles blow
 Over the English lanes and Russian snow!

—Scudder Middleton in "The New Day."

Poem published by permission of Macmillan Company.

A WOMAN, THE SCHOOLS, AND PROHIBITION

UNDER this heading *School Life* (Feb. 16, 1919), official organ of the United States Bureau of Education, offers editorially the following paragraphs as to one reason for the swift spread of Prohibition.

Mary Hannah Hunt was born in Connecticut, was educated in Patapsco Institute near Baltimore, married in Massachusetts and lived to a ripe old age, dying in 1906. About 1875 she was attracted to the study of the effects of alcoholic drinks and narcotics upon the human system. The result of this study was an enthusiasm for scientific temperance instruction. It occurred to her to make a "drive" on legislatures to induce them to write into the law a compulsory provision that physiology and hygiene, "with special reference to the evil effects of alcoholic drinks and narcotics," be taught in every public school.

The full story has never been told of how this woman went over the country appearing before legislative committees and urging the acceptance of her plan. In the early eighties the results of her efforts began to be apparent, and by 1887 the propaganda had taken root in every part of the country. An investigation of the subject made by the Bureau of Education in that year showed that 24 states then required temperance instruction in their schools and that, by act of May 20, 1886, Congress had required such instruction in the District of Columbia and in Territories which have since been organized into 10 additional states. Of the 14 remaining states, all except one had made the requirement by 1900, and that one has since followed suit.

It is quite possible that those who appear to have been mystified by the alacrity with which state legislators ratified the federal prohibition amendment may get some light from the story of Mary Hannah Hunt and compulsory teaching against alcoholics in the public schools.

The day is surely coming when from the school houses all over this land will come trained haters of alcohol to pour a whole Niagara of ballots upon the saloon.—Mary H. Hunt before United States Senate Committee, 1886.—Mary H. Hunt at the United States Committee hearing on the bill for the Federal Temperance Education Law, 1886.



MARY H. HUNT, JULY 4, 1830- APRIL 24, 1906

BEER AN INTOXICATING DRINK

RICHARD C. CABOT, M.D., BOSTON, MASS.

THE question is being raised by the opponents of prohibition: Does not a mild, low percentage beer give us the way out of our difficulties by supplying a refreshing drink which is not intoxicating?

The answer is squarely, No. Anyone who knows anything about the habits of men has seen many get drunk on beer that contains three or four per cent. of alcohol. The reason for this is simply that a considerable proportion of men drink beer not because they are thirsty or because they like the taste particularly, but because they want to produce a certain sensation of exhilaration and forgetfulness. This being so, they will go on drinking beer until they attain the desired result. It may take a little more time, but lands a man in the same place as that which he would reach a little quicker by the whisky route.

The whole point of beer or any other alcoholic drink is the alcohol it contains, not its taste or its thirst-quenching properties.

These are facts that can be verified by anybody who wants the truth and denied only by those who are ignorant or who desire to continue the present system with all its evils.

RICHARD C. CABOT, M.D.

Boston, Mass., May 9, 1919.

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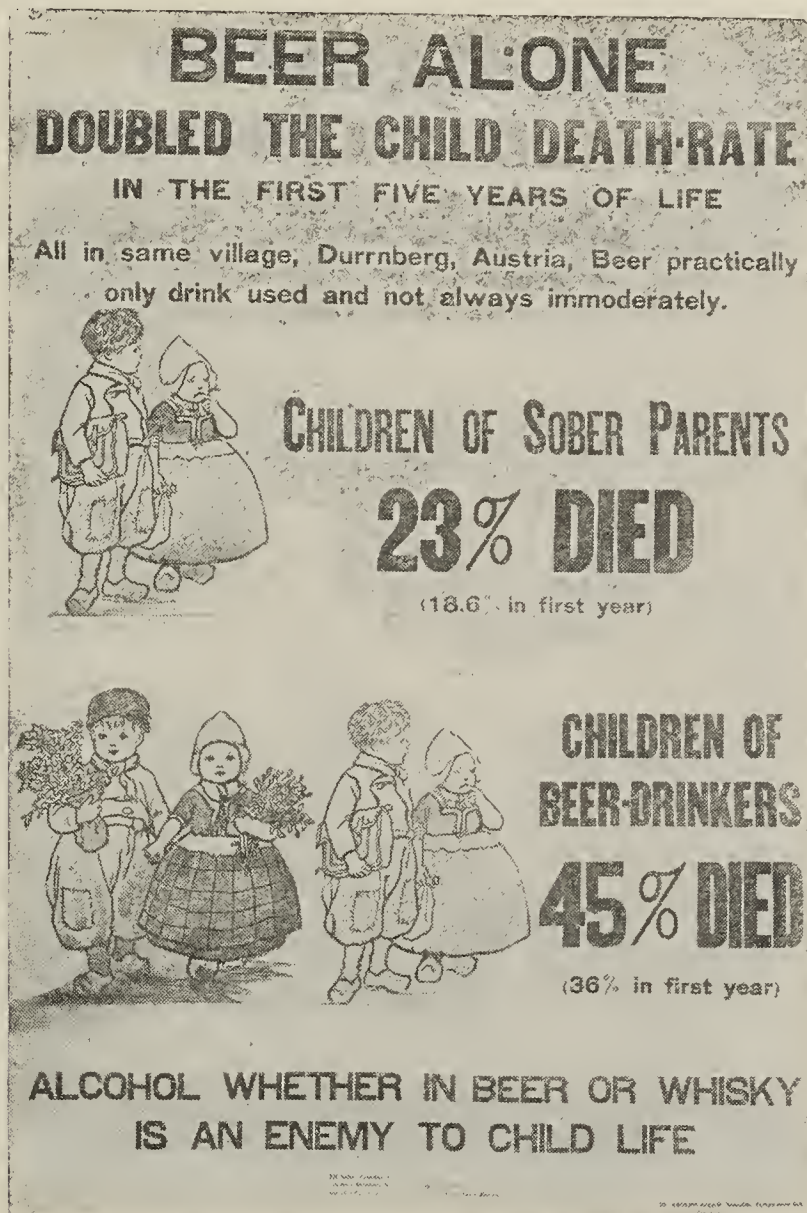
CHILD MORTALITY IN A VILLAGE OF BEER DRINKERS

THE children of whom statistics are given in the accompanying illustration were those of a village in northern Austria where beer was the chief drink. Wine was but little used, and spirits for the most part only by a few noted toppers. The people in this village were living under similar conditions as to food, housing, clothing, and were of the same race. Two hundred and thirty families of uninterrupted strain were investigated, consisting of 675 men and 653 women with 1,328 children. Twenty-two families were childless.

The families were divided into eight groups: (1) healthy, with no inherited tendency to disease or any essential germ injury that would have any weight in an alcohol investigation; (2) slight hereditary taint mostly of tuberculosis without mortality; (3) families in which the father had syphilis; (4) families in which the fathers or grandfathers had taken part in military campaigns and might have suffered impairment by hardship, insufficient diet, or syphilis; (5) families in which one-third at least of the known causes of death was cancer, with no other organic disease present; (6) families in which mortality from tuberculosis was predominant; (7) families of drinkers who did not have tendencies to cancer, tuberculosis or syphilis; the extent of drinking varied; (8) miscellaneous families, those who did not belong to any of the groups.

The investigations showed that the drinkers' families lost 36 per cent. of their children under one year of age; the healthy families, but 18.6 per cent. Under five years of age, drinkers' families lost 44.8 per cent. of their children; healthy families 23.5 per cent. In each case the child mortality in these drinkers' families

in a beer drinking community was two to one as compared with the healthy families. The mortality in the drinkers' group was the same as in the syphilitic group for children under one year of age; it was 10 per cent. higher than in the syphilitic groups for children less than five years old, and at both age periods was higher than in any other health group. With the exception of the syphilitic group, which was small, the drinkers' families showed the highest rate of childlessness.



I consider beer just as great an evil, and just as degrading in its effects as a beverage as any other alcoholic liquor. The degradation is not always so immediately evident, but in time it asserts itself. The whole battle for decency and efficiency and better physical health is lost if beer is exempted.

HOWARD A. KELLY.

Baltimore, Md., April 3, 1919.

AMONG THE MAGAZINES

MEDICAL WARNING AGAINST BEER

NOT even the advocates of temperance," says Dr. Nathan Rosewater (New York *Medical Journal*, March 22, 1919), "have cautioned the public enough against the alcohol lurking in home-made root beer, made with yeast and sugar, and in thousands of the best homes it is given to children, causing constitutional results from alcohol not suspected by the family physician yet produced in these drinks by yeast or other ferments which convert the sugar into alcohol.

"Were a hundred men to stand in line in front of a bar and drink alike at regular intervals, one would be drunk on a first glass, one on a second, one on a third, and so on; yet at the other end would be a few whose capacity would seem to be unlimited, a matter of individual susceptibility and resistance.

"Intoxication is only one of the bad effects of alcohol, whereas its slow effect on the nervous system, heart, liver, kidneys, brain, not noticeable by an unsteady or other recognizable gait or action of the one who drinks, is so well understood that the indiscriminate use of alcohol has no defenders among physicians whether advocates, or not, of its value as a medicine in specific cases."

* * *

PREVENTION OF MENTAL DEFECT

AMONG the means of preventing mental subnormality Dr. Matzinger, of Buffalo, N. Y., in an article in the New York *Medical Journal*, February 1, 1919, included avoidance of alcohol.

"Everyone has observed that the children of the drinking man or woman are very commonly defective in mental development," he says. "It seems to happen oftener in the family of the so-called moderate but steady drinker than in the family of the periodical or excessive drinker. Alcohol is one of the poisons not easily handled in the body." He explains and cites the Stockard experiments as "very convincing proof" of alcoholic injury to the germ cell.

* * *

SHALL WE LEARN MASS PLAY?

ANEW significance has been given to play, amusement and recreation by the experience of our armies overseas, says Dr. George J. Fisher (*Physical Training*, February, 1919).

According to Gulick and Meylan, play has become a great moral force. It has been made stronger than vice. Constructive activities can be made more attractive than are destructive pleasures. Football has been substituted for vice and sports for alcohol and gambling. Recall the illustration (presented in the earlier part of this paper) of the physical director who accompanied the wagon

team and provided sports to keep the men from getting drunk. In the Port Camps very active programs of sport were promoted to keep the men from dissipation in the nearby cafés. In the French army Meylan found the so-called toleration houses with their public women. In a certain camp he found them filled with men and 200 others lined up outside waiting their turn. A week later a great program of sports was planned and on that day not one man was seen waiting entrance. Wholesome constructive activities can be made more attractive than vice. It is when the community offers little to entertain that evil flourishes. Jane Addams has well said that "Society will not be safe until its pleasures are stronger than its evils."

Let us apply this experience abroad to present day conditions. In the United States we are rapidly eliminating the saloons from society through special legislation. . . . Coordinate with this elimination of the saloon should be presented a rich, attractive, healthful, constructive recreational program. The experience during war should incite us to match it during peace times. Anything less is not worthy of us and is unfair to society.

The new program of physical education, particularly the mass play program, requires that we shall train volunteer leaders. In the camps a play leader or better still five play leaders in each company enabled the director of athletics, by training these men in simple games, to put the whole company at play and the whole regiment as well. A volunteer leader in every twenty students in a college or every twenty workers in an industrial concern makes possible play for the mass of men. This kind of training would result in sending young men back into the rural communities with a play program to that most difficult field. The possibilities of the extension of our program by the utilization of trained lay leadership are immeasurable. If a physical director has one hundred such leaders at his disposal he could literally transform his community.

* * *

TOBACCO MEDICAL OBSERVATIONS

EVIDENCE of the effects of tobacco according to *Der Militararzt* (Wien, 1917, S. 199), has been collected by Dr. Schurer von Waldheim of Vienna, who treated in his hospital a striking number of soldiers with heart trouble, caused by smoking tobacco. Stopping the smoking led slowly to improvement. Such a condition was dangerous in infectious fevers, typhoid for example, and the soldiers could not endure long marches as well as their comrades. These troubles were especially frequent in youths 18 to 20 years old.

* * *

DRUG ADDICTION

THERE are two symptoms by which drug addicts may be detected, says Dr. W. A. Bloedorn, Lieutenant-Commissioner, United States Navy (*Journal of the American Medical Association*, Jan. 25, 1919). These are shown when he begins to feel the need of another dose and is prevented by some means or circumstance from obtaining it. He betrays himself by nervousness and rest-

lessness, and a little later by acute suffering from cramps and muscular pains. His predicament then soon becomes noticeable.

The second period is after he has taken his dose, if he does not measure it carefully. If he takes an overdose he becomes drowsy and may be found sound asleep at an unusual hour.

The object of the club room, which often is only a small, badly furnished, ill-kept room, is to have a place where he can remain after he has taken his dose until the drowsiness wears off.

It is important that a drug suspect be watched, and if an actual addict, detected, in order that measures for his treatment and care, if possible, may be begun early.

* * *

THE CONNECTION BETWEEN ALCOHOLISM AND TUBERCULOSIS

COMPARATIVE statistics between the death-rates from tuberculosis and alcohol consumption in various countries have been prepared by Jules Denis, of Switerlaznd. He finds the death rates from tuberculosis between the ages of 25 and 30 are much higher among men than among women where alcoholism is rife.

At a meeting of the Swiss National Commission for Combatting Tuberculosis a series of resolutions was passed affirming:

1. Alcoholism favors the origin of tuberculosis.
2. Alcoholics who are attacked by tuberculosis are for the most part vigorous men in middle age. If they recover or are only lightly attacked, the favorable result is not to be attributed to their use of alcohol, but to their strong constitution.
3. The associations of alcoholism, uncleanness, disorderly mode of living, the misery and deprivations, with their injurious effects upon health are indirect promoters of tuberculosis, not only in the drinker himself but in his family, especially in his descendants.
4. Directly, alcohol favors infection by tuberculosis in the absence of any clear indications of weakened resistance.
5. Animal experiments as well as statistics confirm these declarations.
6. In the treatment of tuberculosis, the use of alcohol plays a very important rôle. Its supposed promotion of connective tissue building can in no wise be depended upon.

* * *

A CONTRIBUTION TO THE STUDY OF FROZEN FEET

UNDER this heading Dr. Francois Debat, aide-major in the French reserves, contributed to the Paris Academy of Medicine Bulletin, April 20, 1915, a study made of the subject upon 104 men. He analyzed the predisposing causes and found 68 cases in which alcoholism was such a cause. The next highest was debility, in 37 cases. Only 13 of the cases were subjects in normal states.

GERMAN PSYCHOLOGY

DR. CAPITAN presented to the Paris Academy of Medicine Bulletin, Paris, Aug. 17, 1915, a brochure entitled "Psychologie des Allemands actuels, alcooliques, fous, et criminels." After discussing the meglomonia of the Germans, giving examples, he showed that it is accompanied by a complete absence of all sense of delicacy, even of simple discipline. The German brain he considered a monstrosity, having considerable intellectual development, but the processes of the higher order of sentiments totally atrophied. He sought an explanation of this chronic abnormality in alcoholism, which may, in fact, create in the brain a state seemingly psychopathic. He showed by a series of observations and examples that alcoholism is frightfully prevalent among the directing classes, the professors and the officers. He concluded that they are alcoholic lunatics, but also criminals, their insanity not relieving the responsibility of their acts. .

* * *

DRINK'S FACTOR IN FALLS

APPROXIMATELY one-fifth of all fatal casualties in the United States are caused by "falls." About 10,000 deaths per year or nearly double the number from any other cause, are classified as "falls" in government mortality statistics. (*Safety*, Vol. 6, No. 9, 1918.) "Those are the records for the registration area including about two-thirds of continental United States. The statistical department of the Prudential Insurance Company of America, places 'falls' as the leading cause of casualty, with 14,855 charged to this cause out of a total of 76,500 fatal accidents for continental United States for the year 1915. . . .

"Reports from 65 companies in 22 different states, tabulated by the Accident Prevention Committee of the National Electric Light Association, show that of all recorded falls for a year, amounting to 963, over 45 per cent. occurred on stairs, on the floor level and over obstructions. . . .

"Lost time through 'falls' was nearly twice as great as from any other class excepting 'handling tools,' which showed a greater number of casualties, but apparently not so severe, since the lost time from this class, also, was considerably less than from 'falls.'

"In a consideration of public safety, it may seem impossible for any hazard to be more serious than are falls in the industrial field, but the fact is confirmed by the annual report of the Coroner of Chicago and Cook county, for the year ending December 31, 1916. It should be noted that the law there requires that 'In all fatal casualties the body cannot be buried without a certificate from the Coroner.' Hence, the returns from such a large center of population are a sound basis for studied conclusions."

In the analysis of the 461 deaths in Chicago in 1916 due to falls, 49, or 10.6 per cent., were definitely reported by the Coroner as due to an intoxicated condition.

"Of the fatalities, 51 happened to females and 410 to males, which seems to

disprove the generally accepted theory that women suffer most from falls on account of high heels and confining skirts.

"The economic waste due to 'falls' is a large item. No other class of casualties is so costly. The greater number of casualties involved and their extreme severity is the reason for the much greater loss from this source. In Ohio, during the year 1915, approximately \$153,000 was paid in compensation, hospital and medical expenses for 3,595 casualties from slipping, tripping and falling. . . .

"An accident insurance company reports that of 128,326 accidents happening to 'careful people,' namely, people who are careful enough to appreciate the advantages of accident insurance, there was a total of 24,191 accidents due to falls, of which number 15,329 occurred on inclines, steps and other walking places. The amount paid for these accidents was approximately \$1,100,000, or an average amount of \$72.42 per fall. Assuming the ratio of injuries to fatalities to be 120 to one (although in New York state it is about 140 to one, and in Ohio 150 to one), the total accidents from 'falls' in continental United States may be estimated; and applying the average cost of \$70 per accident, the actual direct waste from this source may be computed at about \$128,000,000 per year. Therefore, from the viewpoint of economy, in addition to humanitarian motives, it is, indeed, evident that earnest efforts should be directed to removing the hazards which cause falls."

If the Chicago ratio of one fall in ten due to intoxication prevails throughout the country, the great money waste of falls for which intoxication alone is responsible becomes evident. Aside from these, must be considered also the unquestionably large percentage of this class of accidents due to brains slightly fuddled by drink resulting in missteps, falls downstairs, or on the street, or in many of the places from which falls are possible.

Safety also comments on automobile collisions with pedestrians, "It is the usually accepted idea that many collisions between automobiles and pedestrians occur because the drivers of the cars are under the influence of strong drink. Here also the term 'carelessness' is frequently used. Again, it is simply an excuse—not a cause. You cannot prevent a drunken man from driving automobiles carelessly, but you can prevent drunken men from driving automobiles."

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A GOVERNMENT'S WAR ON TWIN EVILS

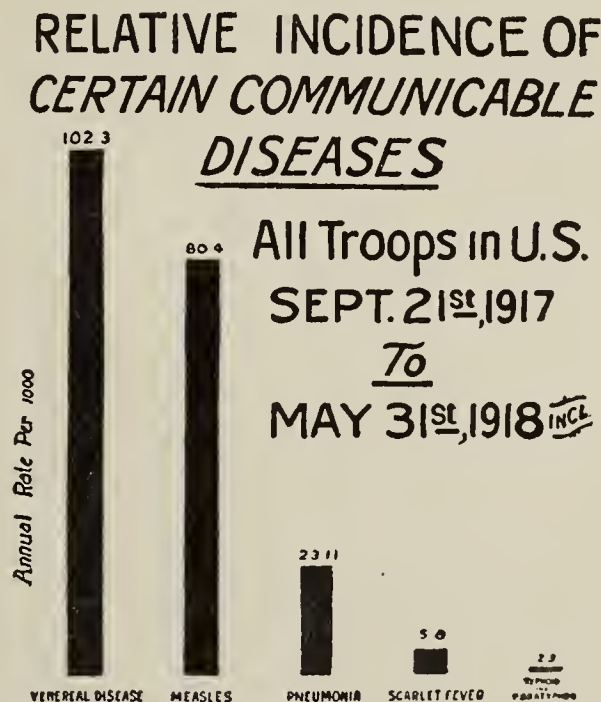
FOR twelve months ending September, 1918, there were 170,000 cases of venereal diseases in our army—a loss of two and one-quarter million training days in a year. So the facts are stated by *Public Health*, bulletin of the Michigan State Board of Health, which also gives the following information.

Syphilis and gonorrhea have been responsible for one-fourth of the sickness in the army and navy.

Venereal diseases were four and one-half times more prevalent in the regular army during 1916 than their nearest rival, measles.

The civil community is the source of infection. Out of 200,000 cases treated in the army, five-sixths of the infections were brought in when the men as civilians were inducted into the service.

Our brief experience on the Mexican border gave an indication of the magnitude of the problem we would meet in general mobilization. The experience of England, France, Germany, and all the other nations, in the early years of the war, furnished ample warning that the situation we would face would be a serious one. The actual prevalence of syphilis and gonorrhea as it was revealed by the reports from the office of the Surgeon General quite lived up to expectations. The accompanying diagram (I) gives an idea of conditions.



The plan which was developed by the medical authorities of the army to meet this situation was comprehensive and it can well serve as a model for civilian work along this line. It had as its basis the principle that continence is entirely compatible with health and that prostitution is the most fruitful source of venereal disease. There was no disastrous compromise upon this important point. The whole program was planned upon this basis and to the amazement of the old-time army officer it proved practicable.

The methods of attack upon venereal disease fall into three groups—social measures to diminish temptations, education of soldiers in regard to venereal diseases, and medical prophylaxis and treatment. . . .

1. Social measures to diminish temptations. These measures can be grouped under two heads, suppressing prostitution and the liquor traffic, and putting wholesome surroundings and recreations in their place. The attitude of the War Department in regard to prostitution was very definite. The policy of absolute repression was strictly followed out. There was no question of futile regulation and medical inspections of prostitutes.

A five-mile zone was established around camps and cantonments, and prostitutes and alcohol were absolutely barred. Cities in the vicinity of camps, where soldiers might go on leave, were obliged to clean up their red-light districts, and they responded, most of them generously—some under pressure.

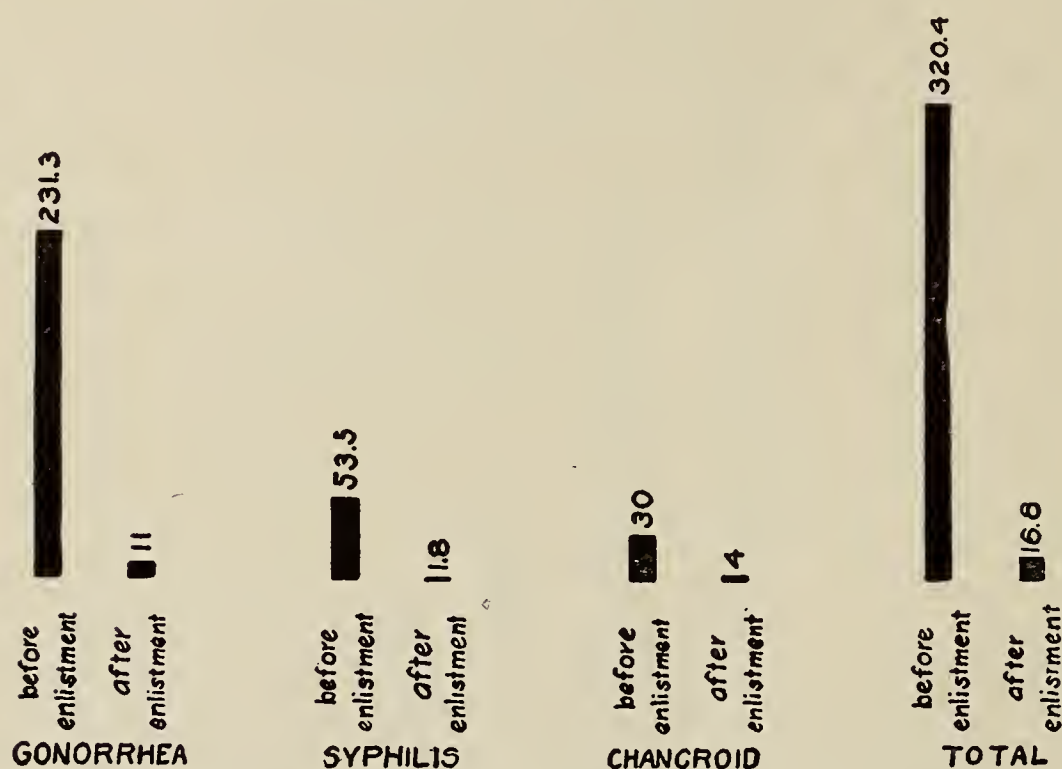
But repressing prostitution and its ally, alcohol, was incomplete without a wholesome substitute. So recreation was given its share of attention under the agencies equipped for such work. . . .

II. PREVALENCE OF VENEREAL DISEASES

before and after enlistment in FIVE NATIONAL ARMY CAMPS

annual rate per 1000

March 29 May 24 incl.



(1) Comparison of the annual rates per thousand men for all troops in the United States, of certain of the more important communicable diseases.

Education in regard to the venereal diseases formed an important part of the military plan. Compulsory lectures, illustrated, were given in all the camps, by men especially qualified and trained for such work. Motion picture films, exhibits, and pamphlets were used extensively. If a man exposed himself to infection, he did it with a full understanding of the consequences, both to himself and to the nation.

Medical treatment was a last resort, when the preventive measures failed. Prophylactic stations were established to provide the necessary early treatment for infections. A man was required to report within eight hours after exposure, court-martial to follow if infection developed after failure to report. Exposure was never condoned, it was held up as a breach of discipline and punished. The man who contracted venereal disease was labeled as a slacker.

The thing which the war has taught us very clearly is that the problem of venereal disease is primarily a civilian problem. Of 170,000 cases reported in twelve months, 91 per cent were of civilian origin. The diagram (II) "Prevalence of Venereal Diseases" illustrates this very clearly. . . .

Prostitution, alcohol, and venereal disease have been, and are, an inseparable trio, and to successfully combat one, means a concerted attack upon all three. . . .

To a large extent, prostitution is artificially stimulated by those who have commercialized it, and liquor is the chief agent for "whipping it up" to the point where it yields the greatest dividends to its backers. . . .

Human nature will always be human nature, but we are gradually learning that it yields to self-control. Mental control is of first importance in directing the inevitable sexual impulses into wholesome activities. Alcohol, because it destroys self-control, is one of the strongest allies of prostitution. Temperance, clean thinking and straight living will put syphilis where it belongs, at the bottom of the list of destructive infectious diseases rather than at the top.

* * *

ALCOHOLISM A CAUSE OF HYPERTENSION OF THE ARTERIES

CONTRARY to the opinion of Lancereaux, who thought that alcoholism did not favor hardening of the arteries, Dr. Camille Lian, formerly chief of clinical medicine of the Faculty of Paris, later aide-major in the army, finds that it has an important rôle in the causation of various forms of arterial disease. He had especially favorable conditions for making investigation. The subjects were 150 territorials, all between the ages of 40 and 43. They were divided into four classes in regard to their drinking habits.

1. Sober, those who drank less than one liter of wine a day and no spirits, *aperitifs* or other liquor.

2. Moderate, those who drank from one to one and one-half liters of wine a day, and no other liquors.

3. Heavy drinkers, those who drank from two to two and a half liters of wine, or less, but accompanied by one or two *aperitifs*, or small glasses.

4. Very heavy drinkers, those who drank three liters of wine, or less, accompanied by four to six *aperitifs* or small glasses.

Hypertension was found in 6 per cent. of the first class, 7 per cent. of the second, 17 per cent. of the third and 25 per cent. of the fourth.

This comparison was thought to justify the conclusion that alcohol plays an important rôle in causing high arterial tension.

* * *

DRINK A HANDICAP IN COMPETITION

FORD SYDENHAM, in his presidential address at the Annual Meeting of the Association of Technical Institutes at Clothworkers' Hall, London, February 21, declared, according to the *Alliance Press Agency*, that early and late drinking of intoxicants by the workers was manifestly harmful, and that if America now decided to "go dry" and was able to maintain Prohibition, he believed that her competition in the foreign trade of the world would be more formidable than it had ever been in the past.

AN ANCIENT PICTURE OF BEER AND WINE DRINKING

PICTURES of the results of beer and wine intemperance in ancient Egypt are furnished by the *National Zeitung* of Basel (June 11, 1918). Peaceable citizens were disturbed in the night by the shouting and carousing of young people coming out of the liquor shops. They would pound on the doors of the sleeping citizens and even break them down in a united rush.

One wise father thus warned his son: "Do not waste your time in the beer house. How easily it might happen that you would fall to the ground and break one of your limbs when no one would be near to help you."

On one tablet was found this letter: "I have been told that you have said to your writing valet that you hunt for pleasure, going from inn to inn. Where will this beer scent lead you? It will take you out of your path, it ruins people, it leads the mind backwards."

Wine drunkenness also is represented. One picture of a gay company shows a young man handing a young woman a glass of wine, and the inscription reads: "Drink till you are drunk and make a good day." Another girl member of the company called to her attendant: "Bring me eighteen beakers of wine. I want to get drunk."

* * *

SIDELIGHTS ON DRINK IN INDUSTRY

IN "An Unpaid War Debt" (*World Outlook*, Jan., 1919), J. Lane Miller excoriates the conditions surrounding the Czechs and patriotic Slavs of the Southwestern Pennsylvania coal belt. It is not all the fault of the employing corporations, some of which have made serious efforts to improve living conditions. "These people are destroyed by lack of knowledge. Influenza reaped a terrific harvest. Systematic instruction in hygiene and sanitation would have saved hundreds of lives. These people wallowed in booze." Patient education, friendly efforts to help them to understand what is for health and real happiness and prosperity, inducements to enjoy what is really recreational instead of drink is the opportunity waiting among these people who gave to and served democratic ideals loyally during the war.

What can be done when drink is put out of the way appears in an account of the social welfare work of a Chilean Copper Company among the peaks of the Andes. An eight hour day, warm houses and baths, restaurants and barber shops enable the men to turn out more work with less fatigue and more self-respect. Moving pictures, club rooms and libraries provide for entertainment and good fellowship and have driven the native *cantina* out of business. The copper company prohibits the sale of liquor and has the mountain passes guarded so that it cannot be brought in. "Drunkenness has stopped, crime has about disappeared. There is hardly one serious fight a year. In Rancagua, forty miles away, where the town is wide open, murders are a daily occurrence."

Asked whether elevator women would continue at this work and keep their jobs in peace time, an employer replied:

"Sure, the women will stay. Physically they are just as good as the men and they don't get drunk."

Yet the working girl, though living at home often has a drink problem. The young girl ("Seeing Sadie Through") asked by her minister why she did not receive her friend at home asked had he never been to her home. The minister had. "Sadie's little sister had been sick, and he found her in the corner of a dirty, squalid room reeking with the odor of strong cooking and wet clothes drying. The mother was pottering around with two or three youngsters under foot and a dirty baby crying in the corner; in the center of it all contentedly drinking his mug of beer sat the father."

But when Sadie for lack of that extra room that her father's beer money would have paid for went with Ned to the back room of a saloon and came home late with not a very clear head, "father" was ready to receive and reprove her and to order her from home. "When a girl o' mine comes home drunk, she can go where she likes for all o' me. But she can't come back home."

"You drink yourself, don't you?" asked Mr. Osterhedd.

"What if I do?"

"You have beer in the house every night, don't you?"

"That don't make no difference. When a daughter of mine disgraces herself by coming home drunk, I tell you—"

"Don't you worry," interrupted Sadie defiantly, "I'll never go home now. I wouldn't if you begged me to"—

"It's a big job," said the minister, "but somehow or other we will see Sadie through."

* * *

A FORECAST OF PROHIBITION BENEFITS

THOSE who are inclined to complain on the score of personal liberty would do well to forget that phase of the subject," says an editorial in the *Review of Reviews* (February, 1919) and to remember what prohibition is going to mean in hundreds of thousands of homes. To be sure that growing boys and men are henceforth to be practically free from the dangers of the drink evil, is a great gain for society. The economic benefit that will accrue to homes and to communities as a whole will be almost beyond computation.

"The capital and energy that have gone into the making of intoxicants will find ample opportunity in various other fields. The prohibition wave has been advancing in this country for a number of years, so that everybody connected with the business of distilling and brewing, and with the retail liquor trade, has had ample warning and long opportunity to prepare for a decision that is not destined to be reconsidered.

"In no small measure, getting rid of alcoholic beverages and the habits they engender is like eliminating certain forms of prevalent disease. It is

sanitary progress, physically and morally. This is the first, and perhaps most notable, of the social reconstruction measures that are to better the world in the post-war era."

* * *

NOTE ON MORTALITY BY HABITS REPRESENTATION

BY PERCY H. EVANS

The experience here submitted is the result of an attempt to classify insured lives by amount and kind of alcoholic beverages used as indicated by the answers given to the following typical questions in the applications for insurance: (a) If you use wine, spirits, malt liquors or other alcoholic beverages, state kind used and how much in any one day at the most? (b) How frequently do you use the amount stated? (c) If you use them daily, weekly or monthly, state kind and average for the past two years? (d) Have you used any of them to the extent of intoxication during the past ten years? (f) If a total abstainer, how long have you been so?

The material was grouped under four definitions which must be construed broadly as indicated by the sub-heads consisting of rulings made in the course of classification. It is believed that while nearly all users take various forms of alcoholic drinks on occasion there is a tendency to favor some particular kind, brewed, fermented or distilled. It will be noted that group "B" (Moderate Users) consists as nearly as may be of those whose statements indicated that their consumption did not exceed Anstie's physiological limit of 1½ ounces of absolute alcohol per diem. The classification was as follows:

A. *Total Abstainers*, exclusive of a small number where the period of abstinence was short and the cases were classified in accordance with previous habits, for the most part in "B."

B. *Moderate Users*.—Users of wine only, not exceeding four glasses of light or three of heavy wine daily.

Beer or light ale, not daily or more than three in any one day at most.

Porter or heavy ale, not daily or more than two in any one day at most.

Light wine, not daily or more than four in any one day at most.

Heavy wine, not daily or more than three in any one day at most.

Whiskey, brandy, etc., not daily or more than two in any one day at most.

Daily, one glass, either beer or wine or whiskey.

C. *Regular Beer Drinkers*.—Persons taking four or more glasses of beer or ale in any one day, or five or more a week, or a daily use of one or more.

Persons also taking wine or whiskey moderately, but not enough for class "D."

No "wine only" cases in this group.

D. *Regular Spirit Drinkers*.—Whiskey, brandy, gin, etc., daily, or three or more "in any one day at most."

Wine daily, five glasses light wine, four of heavy, or more.

Two glasses either whiskey or wine or beer daily.

Without doubt many criticisms may justly be made of this classification. Any two persons going over the material would inevitably disagree as to a con-

siderable percentage. Groups "C" and "D" contain cases excluded from "B" and were generally more liberal users. The relatively small numbers in "C" and "D" suggest the weight given to the habits statement in selection and the general results indicate that no admittedly heavy drinkers were taken. Notwithstanding the evident difficulties of classification on the plan outlined it is believed that the groups are fairly homogeneous and represent real differences. The experience supports this view in so far as the rates of mortality vary in a consistent manner.

There is a notion extant that as the rate of alcohol consumption increases there follows an increasing tendency, exclusive of any conscious misrepresentation, to underestimate the amount. If so the fact must be considered in interpreting statistics on the subject, since the farther we go from the abstainer class the greater is the element of misrepresentation and the less accurately do the classifications represent the facts. A relatively bad result in the group approximating the company's limit of allowable consumption does not necessarily prove that such limit is too high but may indicate that the inevitable percentage of excessive drinkers accepted has been unequally distributed, to the detriment of the unsatisfactory class in question. Excessive drinkers rarely claim to be abstainers, hence, it is submitted, the higher mortality among temperate users may be due to an infusion of risks impaired by habits and not to the absolute effect of alcohol in definite quantities within the company's limit.

It is commonly assumed that the consumption of alcohol among those who use it at all tends to increase with age. It would perhaps be more accurate to say that the individual rate of consumption is extremely variable. In this particular the use of alcohol differs from other consumption habits and the difference is important. Among those who are free users at the younger ages the individuals who become excessive drinkers find an offset in those who, with the maturity of their intelligence, materially reduce or eliminate their indulgence. On the other hand free users observed in the middle ages of life possibly include a larger proportion of cases that graduate into the excessive class and a smaller proportion whose habits improve. The outstanding consideration is the instability of this habit in consequence of which a classification based on representations made at the time of application can tell us very little of the influence of a given alcohol consumption on longevity. The general reader must therefore be warned that nothing better than broad inferences concerning the effects of alcohol can be drawn from data based on original applications where the subsequent histories have not been traced and periodical re-classification made on some significant basis.

The following experience cover 286,392 policies issued by The Northwestern Mutual Life Insurance Company, 1885 to 1900 inclusive, during which period the policies contained not only a warranty but a so-called "temperance clause" providing that if the insured became habitually intemperate, or so far intemperate as to induce *delirium tremens*, the company might cancel the policy during the insured's lifetime. From December 1, 1889, to August 1, 1900, the restriction was limited to five years. This clause and the knowledge of competing agents as to the company's strictness doubtless explains the relatively large proportion (95 per cent.) classed as abstainers and moderate users.

EXPERIENCE OF THE NORTHWESTERN MUTUAL LIFE INSURANCE CO. 286,392 POLICIES
ISSUED 1885-1900. EXPOSED TO 1915. CLASSIFIED BY ANSWERS TO
QUESTIONS CONCERNING USE OF ALCOHOLIC BEVERAGES

By Age at Issue				By Policy Years			
Age at Issue	Actual Losses	Per Cent of Actual to Expected		Policy Year	Actual Losses	Per Cent of Actual to Expected	
		Amer.	M.-A.			Amer.	M.-A.
GROUP "A"							
(168,756 POLICIES, 15,722 DEATHS)							
15 to 29.....	\$ 7,114,600	50.3	86.4	1st	\$ 1,563,700	43.3	89.1
30 to 39.....	10,506,800	57.0	85.3	2d	1,531,600	50.1	80.1
40 to 49.....	10,890,000	69.0	84.2	3d	1,454,300	49.0	75.7
50 to 59.....	6,990,000	73.5	79.8	4th	1,483,600	51.8	77.8
60+	1,491,200	87.1	90.4	5th	1,489,600	53.0	78.0
				6th+	29,469,800	66.6	85.4
Total	\$36,992,600	62.1	84.3				
GROUP "B"							
(102,268 POLICIES, 12,239 DEATHS)							
15 to 29.....	\$ 4,942,400	59.4	102.3	1st	\$ 1,506,300	46.1	92.7
30 to 39.....	11,858,300	68.5	102.8	2d	1,418,800	49.3	77.1
40 to 49.....	14,022,700	79.4	97.5	3d	1,445,000	51.0	76.8
50 to 59.....	9,609,000	84.2	91.5	4th	1,599,500	57.5	83.8
60+	1,740,800	78.3	81.7	5th	1,716,700	62.1	88.5
				6th+	34,486,900	81.3	100.9
Total	\$42,173,200	74.1	97.2				
GROUP "C"							
(13,387 POLICIES, 1,739 DEATHS)							
15 to 29.....	\$ 745,200	66.7	114.6	1st	\$ 171,200	44.0	89.9
30 to 39.....	1,744,400	73.6	110.6	2d	177,700	51.3	81.7
40 to 49.....	1,759,500	91.9	113.3	3d	148,400	43.7	67.2
50 to 59.....	1,200,400	99.6	108.8	4th	231,600	69.6	103.7
60+	154,500	97.6	102.2	5th	221,100	66.9	97.5
				6th+	4,654,000	92.6	117.7
Total	\$ 5,604,000	82.8	111.3				
GROUP "D"							
(1,981 POLICIES, 369 DEATHS)							
15 to 29.....	\$ 48,500	53.1	91.2	1st	\$ 125,700	115.5	214.9
30 to 39.....	434,000	98.8	149.3	2d	105,200	108.1	158.7
40 to 49.....	609,800	103.0	128.1	3d	80,100	84.7	119.3
50 to 59.....	646,900	106.4	116.1	4th	91,300	98.5	134.2
60+	182,000	143.5	161.1	5th	79,300	85.8	113.4
				6th+	1,439,600	105.0	124.1
Total	\$ 1,921,200	103.4	128.9				
Grand total	\$86,691,000	69.3	92.4				

NEW BOOKS AND PAMPHLETS

BEHIND THE BATTLE LINE. AROUND THE WORLD IN 1918

By MADELINE Z. DOTY. *New York: MacMillan Company. \$1.25.*

WHAT are the women of the world thinking and planning for the future? was the question that took the author to Japan, China, Russia, Sweden, Norway, England, and France. She sought the leaders among women in each country for the ideals that are making a revolution in the status of women throughout the world, a revolution no less real and substantial because it is a spiritual struggle rather than a physical battle. There is a vivid portrayal of conditions of life in the various countries, especially in Russia which the author reached in the early days of the Bolsheviki revolution. The events of those weeks as she saw them are pictured in some detail.

Incidentally light is thrown on the drink conditions, especially the mischief resulting from the fact that many of the private wine cellars were left when vodka and the public sale of wine were prohibited. The author heard the commotion attendant upon the looting by soldiers of the Czar's wine cellar of the Winter Palace. "In the morning . . . all over the road and on the frozen Neva were smashed bottles. I picked up a bottle. Its label bore the Czar's coat of arms. It was a choice brand of Madeira. When I reached the Winter Palace I found it was guarded by a ragged crowd of factory boys in civilians' clothes carrying bayonets. They were some of the Red Guard. They at least were sober. Wine is hard to get in these days, and vodka unattainable. Consequently the thirsty Russians grow desperate. That is what had happened the night before. Thirty soldiers got into the wine cellar and held an orgy; other soldiers came to drive them out and remained to drink. Quarreling began. Kronstadt sailors and Red Guards arrived, the drunk and half-drunk refused to leave. Firing began. Tempers rose higher and higher and a small battle ensued. In the end the hose of a fire engine was turned on, all the bottles in the wine cellar were smashed, and the place flooded. Three soldiers were drowned in the wine, and between twenty and thirty killed and many wounded."

From the country came a similar story of the seizure by hooligans of a great estate. The entire family was killed. Drunkenness followed the discovery of wine in the wine cellar. The house was destroyed, furniture divided and land seized.

The Germans gave the Russian soldiers brandy and vodka in exchange for bread and "everything was done [by the Germans] to spread disorder and drunkenness."

* * *

THE VILLAGE

By ERNEST POOLE. *New York: MacMillan Co. \$1.50.*

THE powers of Mr. Poole in interpreting and portraying character have found no better expression than in this series of pictures of village and peasant life in Russia under the Revolution. As Miss Doty's book pictures the revolution in the city, so Mr. Poole, through a series of personalities, gives his readers a vivid idea of what the peasants are thinking and what they need. Again and again recurs expression of the necessity for help along agricultural lines to give the peasant the economic stability and opportunity for progress and reconstruction of life that will be essential to the New Russia if it is to emerge from present chaos. The village store keeper, the progressive landowner, the priest, the physician, the teacher, all make their contribution to this picture of rural Russia.

A glimpse is given of the old vodka days in the story of a former priest who set himself to uprooting the appalling state of drunkenness into which the people had fallen.

"When I was a child, over half the peasants would be drunk for days at a time.

There were fights along the river front. One nightmare in my memory, when I was a little boy, was of a big peasant on a raft smashing out the brains of another with a club. And this was nothing uncommon. Things had gone from bad to worse—till a bottle of vodka came to be used as a standard unit of value. When a peasant was asked what a job would cost, he would answer not in roubles but in bottles of vodka. If there was none to be had in the stores, the peasants would refuse to work; but when it came, there would be a rush to earn money to buy drink. Merchants from the larger towns came here with carts and wagons loaded down with vodka, and for this the half-crazed people parted with their grains, their cows, their very last belongings.

"As the women began to drink with the men, it caused a sex promiscuity that spread disease at a fearful rate. Many children were born idiots. In the village down by the river where we went the other night, there were almost always men, and women and boys lying drunk in the ditches.

"In the winter, every week or two, you would hear of some drunkard frozen to death. And once, when a river merchant got married and at his wedding the vodka flowed free, forty-six peasants lost their lives—for winter is no child's play here, and one must not fall asleep on the snow.

"After a Russian holiday, nearly every peasant's wife would have a black eye or a bruise. There was an old saying among them: 'He has had a fine holiday. He has been drunk from sunrise.' Toward night I could hear them coming home, men and women, singing and howling like gray wolves. Then in the dark the children would come running to my house, and knock softly and creep in and crawl under beds or into the closets. There they would stay till the yells died down and they knew that their parents were asleep.

"You often saw children drunk as well. Many of the mothers put vodka in their babies' milk. 'It is good for my baby,' one woman told me, 'See how well it makes him sleep.' Often a peasant mother would chew a mouthful of black bread, then take it out and soak it in vodka and give it to her child."

Much has been said of the beverage use of denatured spirits after vodka was abolished. It, too, belonged to the old vodka days as the narrator shows.

"I remember seeing men in those days who went about wearing nothing but shirts. They had sold or pawned the rest of their clothes. And half-naked women, too, were by no means uncommon sights. Anything for alcohol. In my father's studio which I used for a chemical laboratory, I burned wood alcohol in my lamp. One day when I was out of the room, two peasants drank up my entire can. At my rage they merely chuckled and said, 'Now, brother, we will go to sleep, and the good God will watch over us.' They ambled off together and lay down in the graveyard of the church."

The young new priest who came to the village finally attacked the vodka which had not even spared the clergy.

"In a village some two miles from here, he was to replace the priest who had died. This priest had been a fearful old souse. For years he had so often been too drunk to conduct any services, that the peasants had dropped the habit of coming to his church. Now the wretched man was dead, leaving a small and filthy hut and a little log church half tumbling down, with a field running back to the forest and all overgrown with weeds and brush, for he had been too lazy to farm. There was no parish school for children."

The new priest set about economic and parish improvements with energy. A stomach pump vigorously employed followed by suitable medicine prescribed by the doctor soon had the confirmed vodka users in condition where "the mere smell of vodka was a terror to their souls." But education as to the effects of vodka went along with the physical clean-up.

"In the church, he preached against vodka without quoting a word from the gospel. He gave only medical facts. And this was a terrible scandal. 'Heathen lectures in our

church!' If a doctor happened to be there, the priest would stop in the midst of his sermon to ask the doctor a question or two and so amplify his words. The peasants opened their mouths like dogs at this chap and his new religion!"

* * *

ALCOHOL AND THE HUMAN RACE

By RICHMOND PEARSON HOBSON. *New York: Fleming H. Revell Company. \$1.25.*

IN the interpretation and application of the known facts about alcohol which Capt. Hobson has set forth in his new book he has demonstrated his right to be called a man of vision. Others have described the physical effects of alcohol with scrupulous precision and copious bibliographies; he has pointed out the relation of these facts to the attainment of man's prime objective—spiritual development.

To reach this goal man must learn to live in the top of his brain, instead of at the base, and all men know, or should know, which site alcohol favors.

In viewing the physical effects of alcohol which are the basis of its effects upon the mental and spiritual life of individuals, and upon the welfare of society and nations, Capt. Hobson traces with broad touches its origin and chemical relations, its effect on protoplasm and the cells, on the nervous system and the mental faculties and declares the reason of the progressive craving.

The chapters on Degeneracy and the Human Life Cycle constitute a call to arms because of the possibilities which alcohol turns to failure. "In man the highest evolutionary forces are the consciousness of God, the sense of right and wrong, love, self-sacrifice, self-control, and sense of duty." Protoplasm, a substance which alcohol attacks, composes the physical machinery for such evolution. With this machinery damaged as alcohol can damage it, there is no exercise on the top part of the brain, no successful striving for high ideals, for self-sacrificing service for others, of daily renewal of the soul by communion with its Maker, and at the end no serene sunset in contemplation of a life well-spent.

In no field can a man more truly feel his efforts to be in harmony with the great forces of nature and the will of God than in a humanity wide warfare against this universal foe.

In the section on alcohol and society we are shown the trend of events toward organized internationalism, but drink in a nation lowers the standard of character for world citizenship, depletes food supply, hampers industrial achievement. The liquor traffic takes a first mortgage on the earnings of millions of workers and leaves legitimate business the pickings; it engenders the spirit of selfishness and antagonism in that it prevents capital and labor from harmonizing their interests. The traffic must seek to dominate politics to maintain its existence, because being predatory, the public must institute some measures of self-defense.

Thus the nations hampered by the traffic must fall behind those free from it. Historians have noted the existence of dissipation, debauchery and luxury with the decline of nations and the downfall of civilization, but have failed to see the relation of cause and effect. The data for understanding that relationship are in our hands today.

The only cure for the deep-seated social disease caused by the long history of drinking ancestry is to neutralize the motives that lead to drink by proper education and social conditions and inhibit the parasite traffic. The truths about alcohol must be handed down to future generations, just as much as the truths about screening and draining as a protection from disease-bearing mosquitoes.

The task is gigantic, but it can be achieved. The race has reached a stage of acquirements which fit it for success in this labor.

The book is a valuable addition to alcohol literature and should have wide circulation.

THE EFFECT OF ALCOHOL ON PSYCHO-PHYSIOLOGICAL FUNCTIONS

By WALTER R. MILES. *Washington, D. C.: The Carnegie Institution of Washington, Publication number 266.*

AMONG the eight normal subjects who served in the Dodge-Benedict experiments was one, Subject VI, upon whom the effects of alcohol were very irregular, so much so that it raised the question whether he was not an individual exception to the general effects, and made it seem advisable to repeat the experiments upon him after the close of the school year. His services were secured and the conduct of the experiments placed in the hands of Dr. Miles, who came to the Laboratory after the conclusion of Dr. Dodge's work. His experiments were carried out entirely independent of the preceding experiments.

The personal history of this subject shows him to be a medical student, scholarship in college average, memory poor, not quick, accurate, long or responsive. He was not an abstainer, and it was said of him that he and his room mate during the school term were in the habit of buying a case of beer and several bottles of wine at a time; that he could take two glasses of beer on a full stomach without noticeable effects; on one occasion he consumed two bottles of beer in an evening. This would be equivalent to one quart of beer, which would contain as much as if not more alcohol than the 30cc. dose used in most of the experiments at the laboratory. He had a few individual peculiarities which made him not an altogether ideal subject. Dr. Miles says of him that while he served willingly and seemed to coöperate in the measurements, one constantly had the impression that he was not trying hard in the tests in which voluntary functions were involved, such as finger movements, word reactions, memory, and general tetanus for producing rapid changes in the pulse rate. He had no personal interest in the experiments and a natural tendency to take things easy was favored by his familiarity with the work through his previous experiments, and the many repetitions of instructions and measurements. It also appears that he had a tendency to spurt towards the end of a tedious test, especially on the alcohol days.

In spite of these drawbacks, however, Dr. Miles' patience has proved equal to clearing up the doubtful points in the previous work of this subject and showing that he was not after all an individual exception to the general depressant effects of alcohol. He showed inferior work in 27 out of 30 of the different tests of neuro-muscular activity employed at the institution. Two of his improved performances after alcohol were the word reaction and memory tests, in which the accompanying pulse measurements showed that he was not always doing his best.

Aside from the value of this work as a verification of the Dodge-Benedict findings concerning the depressant effects of alcohol, is its clear explanation of the necessarily technical processes and its painstaking comparisons and interpretations, which place it within the grasp of the ordinary reader.

A few points brought out in the report deserve special mention. There is some indication that the alcohol effect increased from day to day. July 2 (alcohol day) shows a higher percentage of inferior signs than is evident for June 30 (also an alcohol day); this is also true for July 4 (alc. d.) notwithstanding a decided spurt on the part of the subject in certain voluntary processes on that day.

The maximum effect of the alcohol came in period three, that is, in general, from 1½ to 2 hours after taking the alcohol. This corresponds to the experiments that have shown the maximum concentration of alcohol in the blood to be reached about that time after taking, varying somewhat with the dose.

With one exception, the new experiments do not indicate clearly that the more simple processes are affected most and the higher processes least by alcohol, a point that was thought to be indicated in the former experiments.

The final average of 9 to 1 against alcohol adds emphasis to Dr. Miles' remark that "The probability that the results indicate the true nature of the alcohol effect is greatly multiplied when many such results fall in the same direction."

* * *

THE MAINE LAW

By ERNEST GORDON. *New York: Fleming H. Revell Company. 30 cents.*

FOR many years it has been the fashion to deride the pioneer prohibition law of Maine. Both good and bad reports came out of the state. Mr. Gordon, in this little volume, has clearly established the preponderance of good results from the law and has fully traced the breakdown of the courts on the one hand, and on the other the methods by which not only the law of Maine but that of New Hampshire became the prey of Massachusetts liquor dealers, who pressed an illegal traffic upon the states and made it a matter of political concern.

Fresh legislation and determined voters finally made thorough enforcement possible. Federal interstate legislation has reduced importations of liquor into the state to a minimum and broke the power of the outstate liquor traffic as regards Maine.

The whole story constitutes a striking illustration of the lawless tendencies of the traffic, which show their heads in all countries whenever attempt is made to curb it. It has been a contest of the people of Maine against liquor capital, and apparently the people have won.

Despite the long struggle, the years of poor enforcement in some cities, Maine, though not rich in natural resources, has steadily forged ahead under prohibition to a relatively high prosperity and a relatively low degree of social losses due to alcoholism, as compared with her drunk-cursed society in the early fifties, which Mr. Gordon briefly but graphically sketches.

This little volume should be widely read, especially in foreign countries, to which such conflicting and often inaccurate evidence has been sent.

* * *

THE WHOLE TRUTH ABOUT ALCOHOL

By GEORGE AUSTIN FLINT. *New York: Macmillan Company. \$1.50.*

WITH an introduction by Dr. Abraham Jacobi, whose lack of sympathy with abstinence or prohibition is well known, this volume under its title of telling the whole truth appears to be chiefly an effort (1) to discredit two books on the alcohol question, Sir Victor Horsley's "Alcohol and the Human Body" and Ernest Gordon's "Anti-Alcohol Movement in Europe;" (2) to laud beer and preserve it from the operations of prohibiting laws. As an offset to his repeated criticisms of the two books mentioned, the author's foot-note authorities are mostly "Alcohol and Society" by John Koren, which was based upon articles written for the *Atlantic Monthly* at a time when it is now officially known that Mr. Koren was receiving \$5,000 a year from the brewers. The other book on which Mr. Flint apparently relies is one by "J. Starke," who a dozen years ago was shown up by European physicians to be a practically unknown physician without authority or physiological matters.

The author asserts flatly that beer is not destructive, not habit-forming, not obviously injurious and repeatedly declares in varying phrase that there are no beer drunkards. One wonders how he explains the drunkenness recorded in Germany and elsewhere by historians long before the days of distilled liquors.

For a book claiming to tell the whole truth, the author unfortunately exposes

his ignorance repeatedly. For instance, in commenting on the Stockard experiments with guinea pigs, he laments, "We outcast moderate drinkers can form no very clear idea of the value of Dr. Stockard's experiments as just how badly the little creatures were treated, Dr. Stockard saith not." Apparently the author did not consult the accounts of the experiments in which detailed information is given as to the pains taken successfully to keep the animals in good physical condition.

One other illustration of Mr. Flint's method of handling facts must suffice. He expresses, of course, the view that "chronic alcoholism is proof of deficiency" (p. 190) and selects among other statements for criticism some statistics given by Dr. R. N. Brandthwaite at the Stockholm Congress. The author says: "Dr. Brandthwaite stated that out of 646 women admitted [to some hospital] who were drunkards of the most advanced type, 386 were either married at the time of admission or widows. These 386 had given birth to 2,079 children"—"a pretty fair fecundity"—Mr. Flint writes, "and the more astonishing in that we had been told that alcohol was the poison *par excellence* that attacked the springs of life." It was not "some hospital" but, as Dr. Brandthwaite plainly stated, reformatories to which these women were admitted. Mr. Flint tells only half the story. Dr. Brandthwaite went on to give some more figures which Mr. Flint does not reproduce. Dr. Brandthwaite showed that of the total number of children born to these women, 49 per cent. had died, and the living 1,146 derived from defective drunken parentage "would inevitably in some form or other become useless members of society."

The book is scrappily compiled as though the author had flung together his ideas or collections of material on alcohol and prohibition without reference to logical sequence or effect. At least five times in the course of the book somewhat detailed reference is made to the employment of alcohol in diphtheria by Dr. Jacobi, upon which the latter practically always rests his case for alcohol. Several references in some detail are made to the author's own personal habits and physical history as evidence of the harmlessness of beer and other fermented drinks.

War prohibition, of course, is most unwise in his view. "War time is not the ideal time for such experiments . . . alcohol by relaxing tension induces rest . . . the worried, tired and anxious civilians would need the same substance (alcohol) to dull their anxieties, to moderate their fears, and often to lessen their hardships."

Mr. Flint would "let the drink problem take care of itself," a *laissez faire* argument that was worn out by the logic of facts centuries ago.

His viewpoint is this: "A world without alcohol and tobacco—for, tobacco would go next—would mean that instead of, as now, as few thousand thin-armed, narrow-chested, pale-faced non-smokers, teetotalers and dyspeptic vegetarians, afraid to take a deep breath lest they be wafted to heaven, there would be millions such.

"Besides, I ask the reader, would you be amiable and nice if, when you came home dog-tired, you could find no claret, beer or even a light wine to cheer and comfort you? And if, after a drinkless meal, you had snuggled yourself into an easy chair, your attentive spouse could not fetch you a cigar, or light your pipe—that form of poisoning depending on the robustness of your income—would you, or could you be happy thus?

"Again, what would the workingman do with his spare time, his periods of ease, if he could neither smoke his pipe, nor drink a glass of beer with a comrade? We do not know. . . .

"Would the workingman be any better off if deprived of the saloon? We must say that we doubt it. Men who work with their hands—and such labor is honest and useful—are not as a rule interested in art, in literature, or in science. Perhaps they would become so. But that would not help us, nor them either; for another question would arise: Who would do the actual work of the world—scientists, physicians, men in political preferment, college professors and millionaire capitalists? Hardly, seeing that men, able to work effectively with their brains, would find coarse and practically

automatic manual labor little to their liking. Yet has the arduous work of the world to be done, and some must do it.

"And so, why not let the honest workingmen employ those talents, with which they have been endowed, to the best advantage?"

Will the average American workingman agree that this is a fair picture of himself or that workingmen as a class must necessarily hold to beer and stifle the higher aspirations of human life? This is to condemn the workingmen to an unlovely round of life with a vengeance.

* * *

POSTERS ON SMOKING

New York: Association Press. Set of four, \$.75.

THE Y. M. C. A. has prepared this series of posters to give information about demonstrated effects of smoking tobacco. The experiments conducted under the direction of the International Director of Physical Training, Dr. George J. Fisher, have already been described in these columns. The posters are in card form, 14"x21½", effectively printed in red and black and bearing half-tone illustrations of the activities tested in the experiment, baseball throwing, bicycle riding, marksmanship and precision in fencing.

Information as to the use of the posters can be had of the publishers. Sunday schools and public schools desiring to put before young people reliable, attractive and convincing facts about smoking will find this series of poster cards very helpful.

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PAMPHLETS

EPIDEMIC WASTE OF HUMAN LIFE. By HENRY MOIR, *President Actuarial Society of America.*

A discussion of the loss of life by epidemics with especial reference to the influenza epidemic of 1918. The conclusion is reached regarding the effect of drinking habits that the proportion of deaths among insured abstainers and non-abstainers was about normal, that the statistics do not indicate whether, so far as influenza is concerned, moderate drinking was an advantage or a disadvantage.

RELATION OF HABITS TO LIFE EXPECTANCY. By J. H. KELLOGG, M.D.

An address before the National Association of Life Underwriters on the possibility of increasing longevity by hygienic habits. "Poison habits," under which the author includes the use of nicotine, alcohol, coffee, tea, are discussed at length, especially the effects of smoking.

THE QUESTION ANSWERED. HOW PROHIBITION WORKS IN OMAHA, DENVER, PORTLAND, SEATTLE. By WILLIAM J. JOHNSON.

An address before the City Club of Chicago and Chicago Woman's Club giving valuable detailed information as to effects of Prohibition on city life.

WHY DRY. BRIEFS FOR PROHIBITION. Compiled by WILBUR F. CRAFTS, PH.D., *of the International Reform Bureau.*

A compilation of varied material on abstinence and Prohibition, the latter in local, state, national and international relations.

PROCEEDINGS OF THE NATIONAL SAFETY COUNCIL. *Seventh Annual Safety Congress, 1918.*

A bulky volume of readable and instructive addresses and discussions of practical problems of employers of industry. Not so much attention was given to alcoholism as in some previous years, but one pertinent war-time question was raised, "To what extent women ought to be urged into industries not best adapted to them, while the use of alcoholic beverages is permitted to reduce the working efficiency of the man-power of the country?"

SCIENTIFIC TEMPERANCE JOURNAL

SUMMER, 1919



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CONTENTS: SUMMER, 1919

SMALL QUANTITIES OF ALCOHOL AND THE SENSE OF LOCATION. <i>Curt Glyllensward</i>	61
THE PLACE OF EDUCATION IN THE TEMPERANCE REFORM. <i>Cora Frances Stoddard</i>	71
THE GRAPE AND ITS USES IN THE UNITED STATES. <i>Francis Hathaway</i>	75
IS TWO AND THREE-FOURTHS PER CENT BEER INTOXICATING?	85
THE PROBATION OFFICER'S SHIFTING SCENE	99
SOME COURT INDUSTRIAL ACCIDENT DECISIONS INVOLVING DRINK	103
TEMPERANCE MEN AT WATERLOO. <i>Charles Bailey</i>	107
MAGAZINE BIBLIOGRAPHY, MARCH 1 TO AUGUST 31, 1919	110
BOOK REVIEWS	113
PAMPHLETS AND REPORTS	116

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SCIENTIFIC TEMPERANCE JOURNAL

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VOLUME XXVIII

SMALL QUANTITIES OF ALCOHOL AND THE SENSE OF LOCATION

CURT GYLLENSWÄRD

These experiments described and illustrated in the following article were directed at ascertaining the effects of alcohol upon skill the exercise of which involves careful working together of nerves and muscle. In this case tests were made of ability to direct the arm and hand to a fixed point. Experiments were made when the subject knew he was taking alcohol, also when he did not know it. The results demonstrated that small quantities of alcohol, even no more than that contained in half a glass of 4 per cent. beer, caused a decrease in accuracy. The experimenter describes the results of the effects of alcohol on the ganglion cells of the central nervous system.

A NUMBER of investigations have been conducted to determine the effect of ethyl alcohol on the body as a whole or upon some of its organs.

THE discharge of sensory and intellectual operations, according to Kraepelin, was made more difficult even by small doses of alcohol. Specht, on the contrary, as a result of his experiments on the sense of hearing, was of the opinion that small doses, 10 to 40 com. caused an increase in the sensory irritability, a central hyperaesthesia, although of short duration. The work of Busch on vision and Bergman on hearing pointed in the same direction.

Both Busch and Specht showed that the mental functions are the more disordered as the activity of the motor and sensory nerve systems is facilitated by alcohol which causes a lowering of their efficiency as a whole.

Many of the investigations have been carried on by means of the ergograph. This work is very simple and for the investigation of nervous processes is much simpler than experiments in which there is a well proportioned distribution of the work over the various muscles. Since alcohol exerts a special influence on the nervous system, one must expect a much greater influence upon work which makes greater demands upon skill than upon the muscles.

Such an exercise is provided by what is called "after-marking," by which can be obtained a measure for the ability to direct the arm and hand.

The purpose of the present investigation has been to determine the influence of alcohol upon this ability to direct the arm and hand. It is due to a suggestion by Prof. Ohrvall, and it is my pleasant duty to tender him here my sincere thanks for the interest he has taken in my work and the valuable advice and directions he has supplied.

HOW THE EXPERIMENTS WERE CONDUCTED

The investigation was carried out according to the so-called Blix method of after-marking.

The subject is seated comfortably upon a chair, his back supported by the back of the chair. His right arm hangs lax at his side and in his hand he holds a pencil. At arm's length before him, on a level with his shoulder is a paper fastened perpendicularly to a screen. Midway on the paper is a small mark. The subject raises his arm and without moving any other part of his body, draws the point of the pencil through the mark on the paper, and then lets his arm fall to his side. Then he repeats the movement with his eyes closed, trying to draw through the same mark on the paper. These two movements, first with the eyes open and then with them closed, are repeated a definite number of times. The marks made with closed eyes will usually be some distance from the point aimed at. These distances are measured and added and the sum divided by the number of marks. This gives the average errors for the day. The larger the average the smaller the orienting ability on that occasion.

For the first 96 experiments, the eyes were not closed until the arm had been raised to shoulder height, which made the operation simpler. From the ninety-seventh experiment, the eyes were closed during the entire arm movement.

In order to have the point always at the same place, a block of paper of suitable size was used with a small hole pierced through it. In the first 73 experiments, ten marks were made upon one sheet of paper, but this brought them too close together and afterwards only five were made upon a sheet. This enabled one to study the variations in skill during the successive periods of the trial. Thirty trials constituted one experiment, and only one experiment was performed in a day. They began always at the same time each day, and only the right hand was used.

CUTTING OUT OTHER CAUSES OF POOR WORK

In order to study the influence of alcohol, all other influences had, of course, to be eliminated. The two important influences are practice and fatigue. Experience has shown that the result of practice is greatest at the beginning. The more dextrous the subject becomes, the smaller the influence of practice. In fact it can be eliminated by a few trials.

Fatigue was eliminated by restricting the experiments to only 30 markings, while the feeling of fatigue did not come on until about the sixtieth marking. The influence of previous mental or physical work was avoided by performing the experiments the first thing in the morning, before any other exercise.

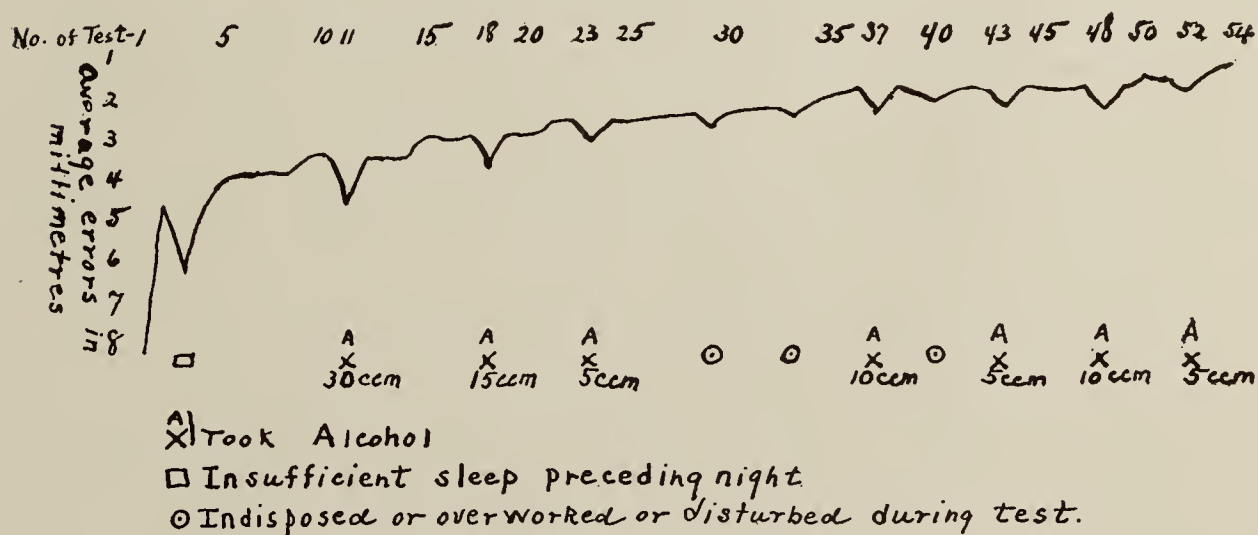
To avoid the influence of poor or insufficient sleep, no alcohol experiment was performed on days when the previous night's rest had been broken, or sleep

insufficient. Prof. Ohrvall had found that the quality of sleep had a marked influence upon skill, and the same was shown in some of my curves. On the nights preceeding numbers 3, 75, 78, 90 and 98 I had not had enough sleep and it is doubtless due to this fact that the curves for those days were lower.

The mode of life was, of course, kept as uniform as possible during the whole course of the experiments, and an exact record was kept of all extraneous happenings that might have exerted an influence. On the days between the alcohol tests parallel experiments were made without alcohol.

All together, 117 tests were carried out, each, as stated, consisting of 30 markings. They are divided into two groups: Group A, consisting of numbers 1 to 54, was carried out in the autumn of 1914; Group B, consisting of numbers 55 to 117 was divided between the autumn of 1914 and the spring of 1915, with a break of 60 days between numbers 71 and 72. In spite of this break, the average of errors in 71 and 72 showed little difference, in accordance with what Prof. Kraepelin and Prof. Ohrvall have both shown, that skill once acquired is long retained.

DIAGRAM 1. GROUP A.



THE SMALLEST DOSE THAT CAUSED EFFECTS WHEN THE SUBJECT KNEW HE WAS TAKING ALCOHOL

The purpose of Group A was to ascertain the smallest dose of alcohol that would produce an effect upon the average of errors. In all the tests in this group I knew when the drink taken contained alcohol.

The alcohol experiments began regularly 50 minutes after taking the dose. The alcohol was taken while in bed, on an empty stomach, in the form of brandy of 20 per cent. alcoholic strength. The first dose (Test 11) was 30 ccm. (one ounce). After this dose, in experiment 11 the subjective symptoms were a feeling of warmth in the whole body, and a certain amount of difficulty in steadily sighting the mark so that 50 minutes elapsed between taking the dose and beginning the experiment. Also, a feeling of fatigue set in at the 25th marking, although this did not happen under normal conditions, as before stated, until about the 60th marking. In spite of this, it seemed to me easier than usual on this

TABLE I

NUMBER OF EXPERIMENT	AVERAGE ERRORS, IN MILLIMETERS	REMARKS
1	8.2	
2	4.5	
3	6.4	Insufficient sleep the previous night.
4	4.6	
5	3.9	
6	3.9	
7	3.7	
8	3.7	
9	3.35	
10	3.25	
11	4.5	30 ccm. alcohol.
12	3.4	
13	3.4	
14	3.3	
15	2.9	
16	3	
17	2.95	
18	3.6	15 ccm. alcohol.
19	2.8	
20	2.7	
21	2.55	
22	2.5	
23	3	5 ccm. alcohol.
24	2.5	
25	2.5	
26	2.4	
27	2.45	
28	2.3	
29	2.75	Disturbed during experiment.
30	2.3	
31	2.2	
32	2.1	
33	2.4	Indisposed.
34	2	
35	1.95	
36	1.7	
37	2.35	10 ccm. alcohol.
38	1.85	Hard work on examination studies during these days.
39	1.95	
40	2	
41	1.95	
42	1.7	
43	2.15	5 ccm. alcohol.
44	1.75	
45	1.7	
46	1.8	
47	1.6	
48	2.2	10 ccm. alcohol.
49	1.65	
50	1.45	
51	1.5	
52	1.7	5 ccm. alcohol.
53	1.4	
54	1.25	

alcohol day to make the marks. This impression was shown to be deceptive, since the work was actually poorer than on the preceding day, the inferiority amounting to 38.5 per cent. (Losses of skill due to slight physiological indisposition, not evident enough to be recognized subjectively, amounted to only 10 per cent.)

The results of the two experiments, 13 and 14, following the alcohol experi-

ment, number 11, are also worse than the result of the one which preceded it, whereas the normal effects of practice would have caused it to be smaller if no disturbance had occurred. This indicates that the after effects of the alcohol outweighed the gains from practice. In the three following non-alcohol experiments the errors grew steadily smaller, describing a regular curve. See Diagram I.)

After the dose of 5 ccm. in Experiment 23 there were no subjective feelings; nevertheless, the results showed an inferiority of 20 per cent.

In order to find whether the influence of such small doses was constant, two more tests, numbers 37 and 48 were made with 10 ccm. and two others, numbers 43 and 52 with 5 ccm., with the usual number of control experiments between. All four tests gave a poorer result than the controls, the curve showing for each a sinking in the accuracy of work. The percentages of loss were, for No. 37, 38.2 per cent.; for No. 48, 37.5 per cent.; for No. 43, 26.5 per cent., and for No. 52, 13.3 per cent.

The only subjective feeling associated with the 10 gram dose was a slight feeling of warmth, which was not observed after the 5 gram dose.

The following table gives the percentage of loss between the alcohol experiments and the ones immediately preceding them, also the size of the doses.

TABLE II
ALCOHOL TESTS COMPARED WITH THE ONES IMMEDIATELY
PRECEDING

EXPERIMENT NUMBER	SIZE OF DOSE, CCM.	AVERAGE ERRORS IN MILLIMETERS	PERCENTAGE OF INFERIORITY
10		3.25	
11	30	4.5	38.5
17		2.95	
18	15	3.6	22
22		2.5	
23	5	3	20
36		1.7	
37	10	2.35	38.2
42		1.7	
43	5	2.15	26.5
47		1.6	
48	10	2.2	37.5
51		1.5	
52	5	1.7	13.3

It is evident from this table that even so small a dose as 5 ccm. of alcohol [about one-sixth of an ounce] lowered the orienting ability of the hand and arm, when I was aware that I had taken alcohol.

TESTS WHEN THE SUBJECT DID NOT KNOW HE WAS TAKING ALCOHOL

Since in the preceding experiments I knew that I had taken alcohol, there is the possibility that the loss was due to suggestion. This possibility of a source of error here deserves consideration because experience has taught that imagination can have an influence on the result of work.

TWO SETS OF SOLUTIONS

To test this, I prepared two solutions, one containing 5 ccm. of alcohol, the other none, in such a way that I was unable to tell them apart.

TABLE IV
EXPERIMENTS WITHOUT KNOWLEDGE OF WHEN ALCOHOL
WAS TAKEN

SERIES	NUMBER OF EXPERIMENT	AV. ERRORS IN MILLIMETERS	PERCENTAGE OF INFERIORITY	REMARKS
	55	1.3		
	56	1.3		
1.	57	1.3		
	58	1.35		
	59	1.7	25.9	5 ccm. alcohol.
	60	1.3		
	61	1.1		
	62	2.1		Disturbed during experiment.
	63	1.1		
	64	1.1		
	65	1.0		
	66	1.05		
	67	0.95		
2.	68	1.0		
	69	1.55	35.5	5 ccm. alcohol.
	70	1.05		
	71	0.9		
	Break of 60 days.			
	72	1.05		
	73	1.05		
	74	0.95		
	75	1.2		Insufficient sleep previous night.
	76	0.9		
	77	0.85		
	78	1.2		Insufficient sleep previous night.
	79	0.65		
3.	80	0.5		
	81	0.5		
	82	1.0	50	5 ccm. alcohol.
	83	0.55		
	84	0.6		
4.	85	0.6		
	86	1.2	50	5 ccm. alcohol.
	87	0.6		
	88	1.0	40	Guessed that it was an alcohol day.
	89	0.6		
	90	0.8		Sleep previous night somewhat disturbed.
	91	0.65		
	92	0.65		
5.	93	0.7		
	94	0.9	22.2	5 ccm. alcohol.
	95	0.45		
	96	0.45		

Method changed to closing eyes before arm was raised. Previously eyes were closed when hand was shoulder high.

	97	5.75		
	98	6.7		Insufficient sleep.
	99	5.0		
	100	5.65		Slight cold.
	101	5.75		" "
	102	5.85		" "
	103	5.8		" "
	104	5.35		
	105	5.4		
6.	106	6.6	18.2	Guessed that it was an alcohol day.
	107	5.3		
	108	6.45	21.7	5 ccm. alcohol.
	109	5.45		
	110	5.45		
	111	5.2		
	112	4.7		
7.	113	4.0		
	114	5.0	20.0	5 ccm. alcohol.
	115	3.9		
	116	4.2		Disturbed during experiment.
	117	4.1		

For the first two series of experiments, numbers 57 to 60 and 68 to 71 the alcohol used was 60 per cent brandy. The solution consisted of 5 ccm. alcohol (=8 1-3 ccm. brandy) and 3 ccm. lager beer, besides a heaping teaspoonful of sugar and one drop of wormwood tincture, with water enough to amount to 50 ccm. The other solution consisted of 5 ccm. (about one teaspoonful) of lager beer, with as much sugar and tincture of wormwood as in the first case and diluted to 50 ccm. in volume. That the insignificant amount of alcohol contained in the lager beer, amounting to only 0.1 ccm. in the first case and 0.2 ccm. in the second, could have no disturbing effect on the results is shown by the control experiments. The concentration of the alcohol in the alcohol solution amounted to 10 per cent.

Partly in order to have a less complex solution and partly to have an alcohol solution which should be identical with the control solution, except for the alcohol, I prepared the following: For the control solution I added 6 ccm. of *Aqua menthae piperitae* and 7 ccm. of saturated rock sugar solution to 82 ccm. of water. For the alcohol solution, 5 ccm. of absolute alcohol was added to the same preparation, the alcohol constituting 5 per cent.

An assistant then put the solutions into numbered bottles, noting the ones which contained the alcohol.

On four successive mornings one of the preparations was taken and 50 minutes afterward the experiment for the day was conducted. In this way one alcohol test and three control tests formed a series. The average of errors for all was not reckoned until the series was completed. Until this was done I did not know on which day I had taken the alcohol. In this way any influence exerted by a knowledge of the size of the error in question was avoided.

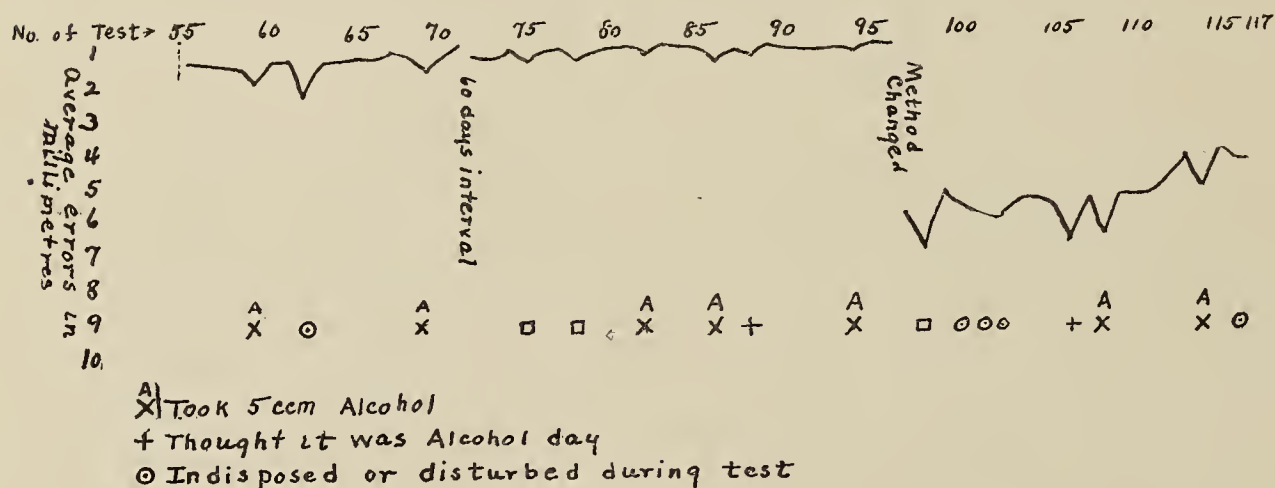
Seven series of experiments were now performed, all with one dose of 5 ccm. of alcohol. In order to determine whether the control mixture had any influence,

I omitted taking any mixture on some days. No influence from the control solutions was ever discovered.

This series of experiments shows that doses of 5 ccm. of alcohol [about one-sixth of an ounce], taken 50 minutes before the beginning of the experiment, have regularly caused a lowering of the orientation of the arm and hand.

Examination of the data of Groups A and B shows that a lowering of more than 10 per cent. never occurred without a special cause. Insufficient sleep was the cause in experiments 3, 75, 78, 90 and 98. Disturbance which distracted attention occurred in numbers 29, 62, 116 and 117. A slight indisposition played a part in No. 33. The inferiority from numbers 100 to 103 occurred during a slight cold. The worst stage of the cold was reached on the day of 102. A sinking from number 38 to 41 occurred during examination studies the previous days, which caused some physiological strain.

DIAGRAM II. GROUP B.



Of special interest are experiments 88 and 106. On these days I thought I detected alcohol in the solution. This was not the case. The alcohol occurred in experiments 86 and 108, where its influence was shown. Since there was no other reason for the drop in the former (Nos. 88 and 106) it is fair to conclude, and in keeping with common experience, that suggestion is capable of affecting results.

These two experiments show how successfully the alcohol was disguised as in both cases I guessed wrong.

The muscle work in these experiments played a very insignificant part. The chief point for consideration falls on the complicated processes in the central nervous system where the movements of the muscles are coördinated. This indicates that the first effect of alcohol is upon the most delicate functions, and probably on the ganglion cells of the central nervous system.

It is well known that there is great individual variation in susceptibility to alcohol, and that habituation plays a large roll. When I began the experiments I had not used any kind of alcoholic drinks for two years. Age also has an influence; in this case it was 20 years.

THE SUPREME NEED

SIR ALFRED PEARCE GOULD

WE are face to face with this question, Is man happier when he is in the fullest enjoyment of his highest mental and moral endowments or when a little short of this, a little lower in the scale? Is a man gifted with an exquisite and highly trained musical sense made happier by dulling his sensorium till he revels in the delights of a jazz band and has become oblivious to the charms of Beethoven, Chopin, or Wagner? Is the second-best of man always the happiest? Of course not! To think otherwise contains the germ of the negation of all ambition, of all progress; it is to turn our eyes from the ever-brightening East and to fix them solidly upon a sun slowly sinking in the West! The great *fact* about alcohol is that it is a *narcotic*—something that dulls sensibility, blurs judgment, inhibits will, lessens cellular activities and all metabolism, and detracts from the fulness of life. Just because of that it ought to be the aim of every true patriot at this hour of our Empire's supreme need, when the call to every one of us is to realize his best, not for self but for the common good, it ought to be our aim to guard ourselves and to warn and protect others from everything that hinders in the race of life. Ladies and gentlemen, I venture to address these few words to you today and to urge you to watch well the great alcoholic experiment which is to be made on an imperial scale, and to do so realizing that the years immediately in front of us are big with the fate of empires, even of civilization itself, when they who know the right and fail to let the light of knowledge be their guide will be beaten with many stripes.

From Address to the British Society for the Study of Inebriety, July 8, 1919.

* * *

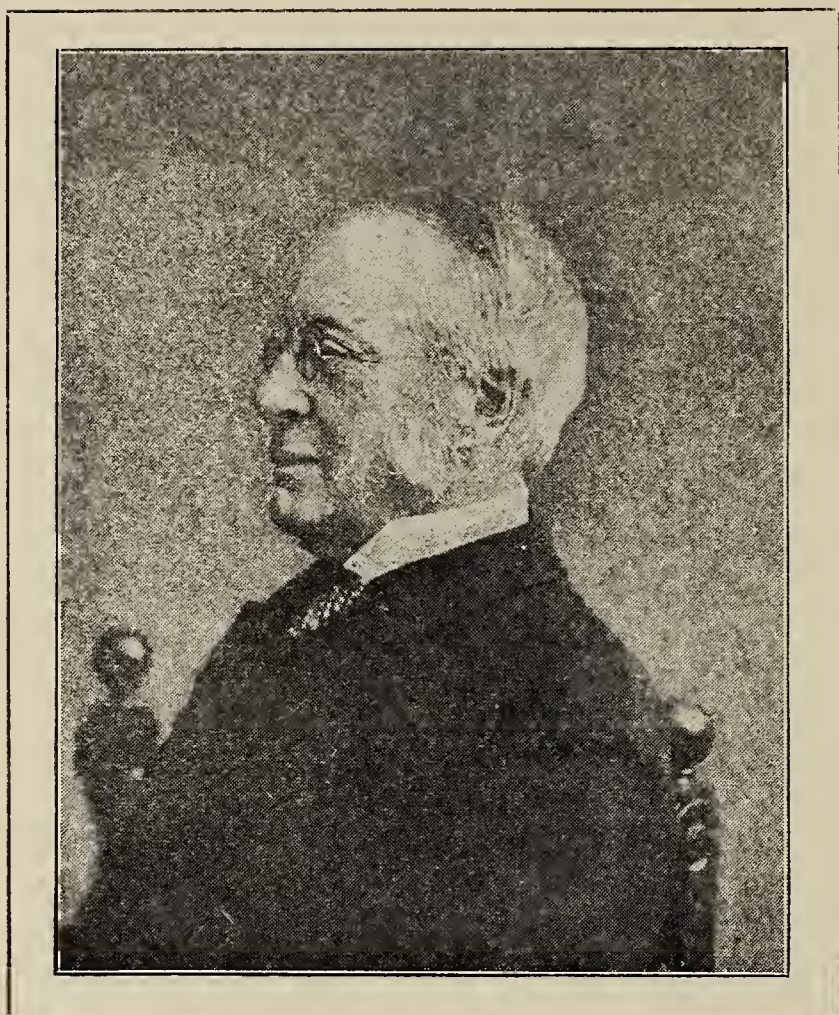
ALCOHOL AND THE INJURED SOLDIER

SIR GERMAN SIMS WOODHEAD, K.B.E., M.D.

WHEN one turns to the men "broken" by the war very special problems present themselves, and in the process of reconstruction unless the importance of these problems is recognized, and an attempt is made to meet the difficulties involved in them, the nation has a very dark period through which it must pass.

The soldier who suffers from concussion may have been able, before the war, to take a fairly full dose of alcohol without experiencing any marked immediate ill effect. To put it colloquially, "he was able to take his liquor like a man." After even slight concussion or great nervous strain, such as has been only too frequent during the war, he has become moody, excitable, violent, in a most marked degree after taking even small quantities of alcohol—quantities that under normal conditions would scarcely affect him. This, apparently, has been the experience among patients just released from continuous medical supervision, and especially amongst those who have been detained for further special treatment after they have been discharged from hospital. This type of patient, unless very carefully watched, will, I am convinced, be a source of very considerable trouble and danger to the community, not only in the immediate future, but for some time to come.

British Journal of Inebriety, October, 1919.



WITHIN recent years great progress has been made in knowledge of the effects of alcohol on the human body when used either in moderation or in excess. This knowledge it is emphatically the duty of the schools and colleges to impart to all their pupils, and to spread throughout the communities in which they are respectively situated. No vested interests and no class privileges should be allowed to interfere with the discharge of this serious public duty.—Charles W. Eliot, President Emeritus of Harvard University, in Teachers' Leaflet, United States Bureau of Education, Number 5, 1918.

THE PLACE OF EDUCATION IN THE TEMPERANCE REFORM

CORA FRANCES STODDARD

THE way of truth with the human mind can never be other than illuminating and inspiring to one who will watch and trace its influence upon humanity's past and present.

It includes the gracious task of molding the thoughts and opinions of children and youth. It means the wrestle of demonstration to convince the mind of maturity. It is a field of many soils, many seeds, requires many tools and far-seeing, ingenious and adaptable tillers. Here we are at one with all the great modern preventive movements which recognize that before any physical or social ill can be removed, its cause must be sought out, the people must be taught the cause, must be convinced that it is necessary to remove it and how to remove it. When years ago Pasteur was called in to overcome, if possible, the silkworm disease that threatened a section of France with enormous loss, he set himself to find the cause, how it operated, and then how it could be overcome. Yet, serious as the situation was, he had to convince the growers of the truth of his discoveries. "Tell them to do *exactly* as I told them," he said, in one instance, "and they will have no further trouble." And in time the plague *was* stayed.

It was one of the fathers of preventive medicine, Sir Benjamin Ward Richardson, of England, who pointed out the possibilities and desirability of teaching the children the facts about alcohol, though it was an American woman who made theory practice and whose efforts for temperance education were one means of changing the world's evils from drink.

Let me say that I freely recognize that the time comes when the fruits of education must be gathered up and applied. That is, knowledge must be put into action, conviction must be turned into motive power. And what measure of success we may have attained in our temperance movement in America is largely due to the fact that the two phases of education and organization have so largely been co-existent and co-active. The one period where we actually lost ground was the period when education was neglected—the period covered by the slavery agitation, the Civil War and reconstruction.

I am not going to say much here about what we have tried to do in educational ways for two reasons: First, if you are interested you can go out into the lobby and see for yourself in the exhibit the educational forces and methods that have been at work. And secondly, I understand very well that there is little we have done here that does not exist in some form or other in European countries. I saw a great temperance exhibit in Europe almost a decade before we attempted one here. Posters were a feature of education there some time before we undertook them on any comprehensive scale.

We have been indebted to Europe even for a large part of our scientific facts. But from what I know of the methods in this and other countries, I am disposed to think that the one distinctive feature of our educational work has been that it has been fairly systematic, persistent, and with the aim of universality. The school work, for instance, aimed at reaching *all* the children and to this end was made a part of the regular school course. Specific textbooks were provided. The study was given legal and educational recognition. We know very well that the instruction has often been far from perfect. But I believe this to be true, as the result of striving toward this ideal of systematic, universal instruction, that very few children leave our public schools without being taught somewhere in their school course that an alcoholic beverage is a dangerous beverage and why.

The Sunday School temperance education was made regular and systematic. The poster campaigns of recent years have had a definite end in view and have been used, and very widely used, according to well-organized plans devised to accomplish those ends.

And, secondly, we have been learning, perhaps *trying* to learn would be better, to put truth so simply that the humblest mind can grasp it. This is a problem of which we shall probably never see the end because we are between the Scylla of stern science that demands all explanatory and qualifying details, and the Charybdis of the great uninformed public who at first can understand new truths only in broad lines.

But in general I should add *simplicity* to *system* as an essential of successful educational work.

And third, we are learning the power of appeal to the sense of sight—that is, to put our facts into concrete form that can be seen. The eye is vastly more useful than the ear in catching new facts, especially if you put them into some striking form that connects them with some already familiar idea. Even the diagram, imperfect though it is as a medium of information, will convey ideas of the differences between alcoholic and non-alcoholic conditions. I have seen hundreds of school children intently watch a diagram as an illustration of a fact being taught, and over and over again have seen them reproduce the teaching correctly and intelligently in their own words. So to *system* and *simplicity* we may add the graphic illustration—*visibility*—as a frequent essential of effectiveness in temperance education.

And with all these we shall fail unless we definitely aim to take the facts out to the people where they are.

Where are the people whose votes you must win to carry out that next education?

Are they in your great public temperance meetings? Not often. The meetings are necessary. They inform and inspire, but mostly those who are already convinced.

The news in the press gives the general public some knowledge. But the people we want are those who will not attend a temperance meeting, who

will not at present read a temperance leaflet. They must be won where they are, on the street, in the shop, in the home.

Wherever you can, attract their attention by publicity, educational methods that will link the drink question up to what is already of interest to them.

System, simplicity, visibility, accessibility, are certainly four of the important foundation stones of any temperance educational undertaking.

Just a few words concerning our future in this country.

We are in danger of taking too much for granted. Every teacher has the experience of discovering dense ignorance in spots which she thought had been fully cleared up by her instruction, or that she took for granted would be naturally understood. We shall find some of our own temperance writers referring to alcohol as a *stimulant*, although it is definitely proved *not* a stimulant. A scientific professional man in my own city not long ago argued with me that the chief danger in drink was using it in the early morning on an empty stomach. We have the demands for beer which, after you have sifted out all the trade propaganda and trade interest, have a residuum of genuine belief in the harmlessness or even benefit of beer. I saw in one of our own Boston papers on the train last evening a most alluring advertisement of an extract with which to make a home-made alcoholic beverage. It reminded one of the man in the western story who made stone soup. The stone was there to give the name, but so were the potatoes and onions and all the other good vegetable ingredients of a good stew. All that this extract advertised for making a home drink does in the home drink is to give flavor. The rules for making it require yeast and sugar, heat and, therefore, alcoholic fermentation.

We have hundreds of thousands of new-comers among us who have no background whatever of a century of struggle against drink and who have their own drinking customs some of which will give us trouble until knowledge has shown the better way.

No. Educational work about alcohol will have to continue for a long time yet. In this country I think that the advantages of prohibition will largely demonstrate themselves so that we may not have to do so much education as to the results of prohibition. I hope so. But as to the liquors themselves and the nature of the alcohol they contain, it will be necessary not to relax diligence in the education for a good while. The children should grow up knowing why their fathers abolished alcoholic beverages. Make it a part of history, if you please. The men of today who are demanding beer should be helped to see that they are thereby writing themselves down as willing to be among the less effective and, therefore, the less responsible men in the new order of the world—and *why*.

Let us make our teaching more and more concrete and definite.

Let us not waste much printer's ink in mere appeals or catch-words unless

they carry actual instructive power, but press the *fact* till theory or misinformation or ignorance has to give way before it.

It is said that Claude Bernard, the French physiologist of the nineteenth century, had this principle in experimentation: "When you meet with a fact opposed to a prevailing theory, you should adhere to the fact and abandon the theory, even when the theory is supported by great authorities and generally adopted."

Our business, then, for the next years is first to be sure of our *facts*, and then continually to press them upon the minds of the people with courtesy, with all skill and winsomeness, with ingenuity in devising new methods of education, remembering always that *system*, *simplicity*, *visibility* and *accessibility* will eventually open fast-closed doors of ignorance and prejudice.

THE GRAPE AND ITS USES IN THE UNITED STATES

FRANCIS HATHAWAY

THE emphasis placed upon wine production and the problem of what is going to happen to it under prohibition of the manufacture and sale of alcoholic liquors have somewhat obscured the other large and varied uses of grapes in the United States. As a matter of fact, while it is true that different kinds of grapes are produced for the different purposes there is possible a certain amount of interchangeability. Certainly the wine part of production cannot be allowed to overshadow in public thought the extensive use and high value of this fruit as a part of the nation's dietary. In the list of foods grapes are of value like other carbohydrates in saving nitrogenous tissues and reducing the excretion of nitrogen, while their organic acids make mild laxatives and diuretics.²⁰

Early attempts at grape-growing in the United States did not succeed well. European varieties were introduced but proved to be subject to the phylloxera, the tiny root-louse that ravaged the French vineyards in the nineteenth century, and to various forms of mildew. Hardy stock was finally secured from native grapes; among the earliest were the Concord and Catawba grapes grown in the North and the Scuppernung in the South. The development of these American stocks resistant to the phylloxera was one means by which the European vineyards were re-established after the phylloxera plague by the use of American varieties or by grafting the European vines upon American stock.

The wine grapes of California include the best known French, Spanish and Italian grapes, as in southern Australia. The great bulk of them, however, are Zinfandel, whose origin is not known. (F. T. Bioletti, personal letter. Aug. 19, 1919.)

The grape-growing industry became established in the United States about the middle of the nineteenth century. By 1860 all the states and territories except four were producing cultivated fruit. California, New York and Ohio were the three leading wine-producing states, and with but few exceptions in the years have maintained this lead.

The last Federal Census showed a grape production of 2,571,065,205 pounds, an increase in 10 years of 97.6 per cent., and valued at \$22,027,961. Of this amount, 1,984,597,000 pounds were produced in the Pacific division.

The grape is used in five principal ways: 1. For eating as table grapes. 2. For raisins. 3. For grape juice. 4. For wine and brandy. 5. For syrups and condiments.

California early proved a suitable place for the European variety of wine grape.

New York led in the development of American grapes for table use, wine and unfermented grape juice.

TABLE GRAPES

The California table grape is of the same general type as the Malaga imported from Spain. The shipments of these grapes from California increased from 1,033

carloads in 1902 to 6,354.5 carloads in 1912. The fruit is packed in redwood sawdust which has proved superior for keeping the quality of the grapes to the ground cork used for the packing the Spanish Malaga. The grapes are held in cold storage, some until after the holidays; others can be held successfully until early spring.¹³ Husmann writing in 1904 said that "Many instances are on record in California where table grapes have given the producer a return of from \$200 to \$350 an acre. The statement has been frequently made to the writer by parties owning such vineyards that they are 'about as good as a mint.'"¹⁴



PACKING AND DRYING RAISIN GRAPES

The Eastern table grapes are generally packed in baskets and sold for early consumption.

The first raisin grapes were grown from seeds of imported raisins in 1851 in California. Many experiments were made with the different varieties. They are all wine grapes. The Alexandria has become the principal variety used. Others are the Muscatel, Gordo Blanco, Sultanina and Panariti, the latter used as a currant grape. The United States Department of Agriculture has demonstrated that this currant grape can be profitably grown which paves the way for the establishment of another important and extensive grape industry.² There will be economic advantages in handling it as it ripens early, hence the raisins will be dried and stored by the time other raisin grapes are ready to handle, so that the labor employed can be used on two crops. Their early ripening will enable them to be grown in sections where other raisin grapes do not ripen before the earliest rains. The importance of developing this now proved possibility

appears in the fact that before the war, the United States was importing annually over thirty million pounds of dried "currants," the equivalent of 100,000,000 pounds of fresh grapes, worth about \$1,206,000. "There is no reason," says a government bulletin,³ "why this country should not produce the 35,356,000 pounds of currants that it has for ten years been annually importing."

THE RAISIN

The raisin industry has developed enormously in thirty years. With the exception of small outputs from Arizona, Utah and New Mexico, it is practically entirely a California product. In 1873 the state produced 120,000 pounds. The increasing value of the product to the country is shown by the following statistics:³

YEAR	CALIFORNIA CROP POUNDS	EXPORTS POUNDS	IMPORTS POUNDS
1885	9,400,000	38,319,787
1895	91,000,000	15,921,278
1905	90,000,000	2,415,456	10,309,498
1910	115,000,000	8,526,114	5,042,683
1915	250,000,000	24,845,414	2,808,806

Fresno county alone, it is said, now produces over double the amount of raisins produced in all Spain.⁵

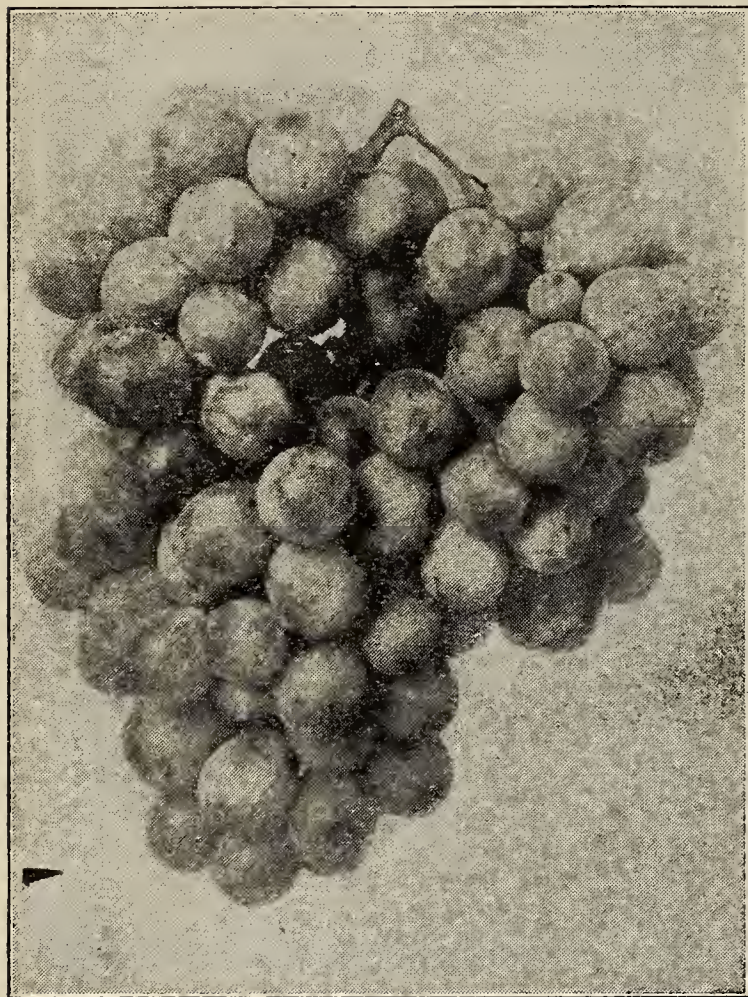
Raisins proper are dried in trays, about three weeks being required. Sometimes they are dipped and scalded in alkaline mixture which expedites drying. The loose raisins are cleaned, sorted, packed and shipped. The cluster or layer raisins are equalized (new raisins put with overdried to equalize moisture) sorted, pressed, and packed.

The invention of the raisin-seeding machine was an important factor in building up the industry. When first put on the market the grower found it difficult to dispose of 20 tons. The output in 1913 was 29,000 tons. Seeding machines now in use turn out 300 tons a day. The seeded raisin has thus become the most important branch of the industry. The establishments in which the grading, seeding, facing, and packing are done furnished employment for over 5,000 persons with a monthly pay-roll during the season of from \$200,000 to \$350,000.³

The seeds removed were first used as fuel. Several by-products are now made from them. In Europe the seeds are fed dry to horses, cattle and poultry, or are crushed for oil which is said to rank next to olive oil, and can be used as a substitute for linseed oil. It is clear, yellow, and burns without smell or smoke. A ton of grapes will yield from 40 to 100 pounds of seeds. These 100 pounds will yield about 3 quarts or 16 pounds of oil, and 100 pounds of oil will make 166 pounds of superior soap. In Italy the single province of Verona makes yearly about 600,000 pounds of oil. The seeds also yield tannin used for tanning and other purposes, and after the oil and tannin have been removed, the crushed mass may still be ground to a meal useful as stock feed or as fertilizer.¹

The California raisin industry has not developed and prospered without intelligent and combined effort. In 1897 the price to the growers had fallen to

three-fourths of a cent a pound and thousands of acres of vines were pulled up. Several unsuccessful attempts were made to organize the growers. Every year there was a large hold over because little or no attempt was made to extend the use and market, and no one grower could undertake the advertising necessary. Finally, in 1911, the California Raisin Exchange was organized to provide a central place for buying and selling and to map all the raisin acreage planted or in bearing. This gave way in 1912 to the California Associated Raisin Company which not only undertook to dispose of the hold-over and to get the better price, but also an advertising campaign to acquaint the public with the various uses to which raisins could be put.³ and ⁴



A BUNCH OF TABLE GRAPES AFTER TWO MONTHS IN COLD STORAGE PACKED IN REDWOOD SAWDUST

bearing annually. A market is readily found for all they produce.⁵

The question is asked whether raisins could be made from grapes now used for wine. An official of the Associated Raisin Company states (personal letter, Aug. 29, 1919) that "Wine grapes do not make good raisins and are not often used for that purpose." The Division of Viticulture of the University of California thinks that approximately one-half of the wine grapes grown in the raisin districts could be dried, and "would under present conditions probably find a market

adopted, advertisements were inserted in national publications of large circulation, and these full page advertisements are continued. The advertisements included recipes for raisin bread, pie, buns, muffins, etc., with offers of a free booklet containing more. They exploited the nutritive value of the raisin (about 1,600 calories to the pound). On April 30, 1915, an entire carload of raisin bread was distributed free at the Panama-Pacific Exposition from the Pure Food and California Buildings. The growers are all stockholders, holding it is estimated, about 90 per cent. of the stock. The vineyards have increased in value, now being held at \$400 to \$750 an acre. Thousands of new vineyards are coming into

without much trouble as inferior raisins for domestic consumption.”⁶ A later bulletin⁷ suggests that where sun drying as in the raisin district is impossible, drying by evaporators is possible by the methods used in the Sacramento Valley for producing Sultana raisins.

In 1918, this bulletin states, about 4,000 tons of sun-dried wine grapes were produced in California and sold for an average price of over 4½ cents, in some cases bringing higher prices than raisin grapes. This represents a price of \$14.45 a ton for fresh grapes.

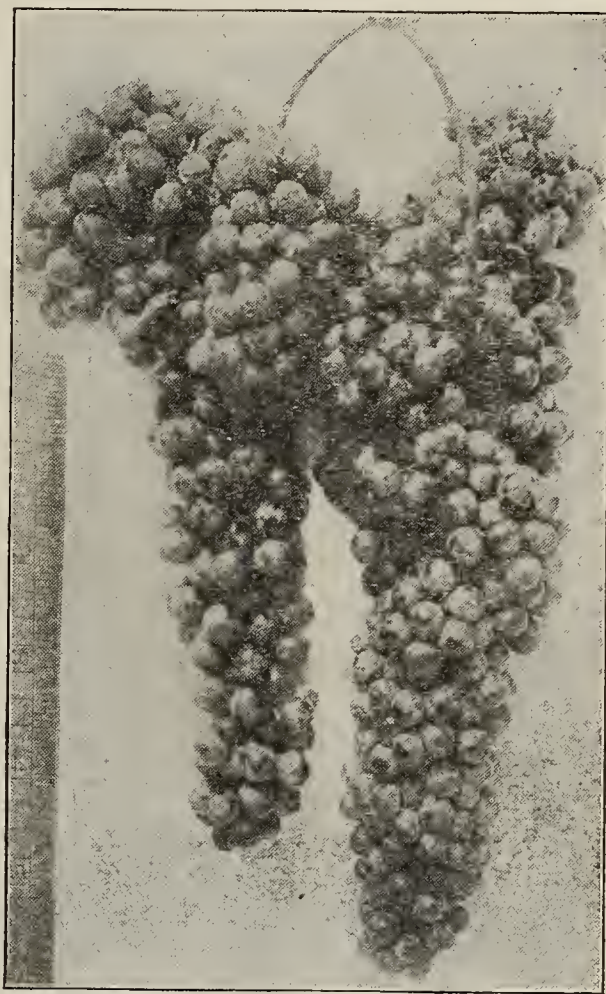
GRAPE JUICE

The unfermented grape juice represents another phase of the grape industry in the United States. Commercial grape juice comes from California where certain varieties of wine grapes are the source, and from the Eastern States like New York, Ohio, and Michigan where native American varieties, especially the Concord grape, are the chief source. The resulting products from the two types of grapes are quite different. The California grapes give a very sweet juice, lacking enough natural acid to be wholly satisfactory.⁸ This, in the judgment of California authorities, is not an insuperable obstacle when attention is once turned to grape juice production from wine grapes; a good product merely requires judicious choice of varieties and degrees of ripeness and intelligent handling.

The grape juice industry, beginning with the production chiefly for sacramental purposes, has steadily grown in importance and value as the juice has become known and its use popularized. As long ago as 1904 the unfermented grape juice plants were turning out nearly 1,000,000 gallons annually; besides there were the domestic supplies put up in the homes.¹

The government has acquainted housewives with the advantages of the juice, with methods for making and serving it at home and with various culinary uses to which it can be put in addition to its beverage uses.^{8, 10 and 15}

Here again in the commercial field, advertising on a large scale has acquainted hundreds of thousands of people with grape juice and its uses, palatability and nutritious qualities. It is a form of liquid food, containing “less water than



A COMPOUND CLUSTER OF PANARITI GRAPES
USED FOR “CURRANTS”

milk, more carbohydrates, largely present in the form of sugar, and has less protein fat and ash than milk. Grape juice as a food is essentially a source of energy, and may help make the body fatter. Sugars in moderate quantities are wholesome foods and grape juice offers them in a palatable form while the agreeable flavor increases the appetite which is a consideration by no means unworthy of attention."⁸

WINES AND GRAPE BRANDY

In 1918 the United States produced 51,029,821 gallons of wine of which 17,513,109 contained over 14 per cent. of alcohol. (International Year Book for 1918, p. 371.)

Grape brandy became a considerable product largely in California. A thousand gallons of wine yield from 100 to 180 gallons of proof brandy depending on the grapes or the alcoholic strength of the wine. Large quantities have been used in the manufacture of "sweet wines." In these wines only a part of the sugar was allowed to ferment, fermentation being stopped by the addition of brandy, the process called "fortification."

In the fiscal year ending June 30, 1917, 18,159,931 gallons of wine were fortified with 5,039,786 (tax) gallons of brandy, producing 21,019,358 gallons of fortified wine. Of this about twenty millions were made in California.¹⁰ Such wine is not either necessarily "light" in alcohol or merely fermented grape juice. Part of its alcoholic content is spirits distilled from wine. The American wines thus fortified were made in California unless otherwise indicated: Angelica, Delaware (Ohio), Madeira, Malaga, Marsala, Muscatel, Port (in all wine producing states), Red Concord and Scuppernon (Ohio), Sherry (California and New York), Sweet Catawba (New Jersey and New York), Tokay.¹⁰

The largest quantities produced of these fortified wines were of port 9,210,000 gallons, and sherry 5,590,139 gallons.¹⁰ The alcoholic content of American port wine ranges from 10 to 17 per cent. by *weight* averaging 13 per cent.; of sherry, from 13 to 20 per cent. by weight, averaging 15.5 per cent.¹¹

USES FOR WINE GRAPES UNDER PROHIBITION

The question is asked, What can be done with the wine grapes when the manufacture and sale of wine is prohibited.

Some growers anticipating the condition have for some years been gradually replacing their wine grapes with the varieties of grapes useful for raisins or the table, or with other crops.

Bulletins recently issued in California suggest several ways out. One is the *drying* of the grapes to be shipped to other countries or markets there to be made into wine.¹² This, of course, would not in the least help out the world alcohol problem but might even accentuate it, if, as one bulletin suggests, brewing and other liquor interests establishing themselves in China and Japan should undertake to build up a market in those countries for wines made from American dried grapes shipped thither for this purpose.

About one-half of the grapes hitherto used for wine in California are in the

raisin districts. These, it is suggested¹³ could be dried and would find without much trouble a market as inferior raisins.

Grape Syrups have been proved to be one feasible method of using wine grapes. Experiments have been conducted in California College of Agriculture which have demonstrated that grape syrups can be made which are nutritious, agreeable and attractive, and could be handled and used on the same basis as maple syrup.⁶ The syrups are of two kinds, one neutral in flavor, low in acid, and light in color, but both the acid content and the color can be regulated by variation in methods of handling. The other syrups retain as much as possible of the special flavors of the grapes. The acid and red grape syrups are especially promising for use in making summer drinks, candy, and ice cream flavoring.⁷ The syrup was found good for table use with rice, mush (boiled or fried) with hot cakes, corn bread and biscuits. Cake and cookies made with it remained moist longer than when ordinary sugar was employed. It was found excellent in corn bread, ginger bread, puddings, pies and ice cream, also in canning.

Economy in producing the syrup is possible by having it condensed at the beet-sugar factories. These factories in California have sufficient capacity to condense all available grape juice with but few changes, and as they are idle several months each year they could easily concentrate all the grape juice that would be available if this juice could be kept (by the use of liquid sulfurous acid) and stored so that it could be condensed in the spring and summer when the factories are not busy with beets.⁸

The experimenters concluded that to make the process financially practicable the syrup would have to retail for at least \$2.00 a gallon. A ton of grapes would yield syrup of a final value from \$90 to \$135. The process is, however, still only in the experimental stage. The market for syrup would have to be developed. The success of the raisin and the grape juice producers in developing the market for their products indicate what may be possible with this new grape product. Meanwhile, to tide the products through the introductory period the College of Agriculture bulletin suggests that the government could make regulations requiring fruit canneries to purchase a certain amount of grape syrup with their purchases of sugar, or imposing limitations on individual purchases of sugar and cane syrups with freedom of purchase of grape syrup.

Unfermented Grape Juice though not heretofore ordinarily derived from wine grapes, the California authorities are convinced is a wholly practicable product, if good raw material is used, and scientific technique is observed in the process. The cheaper grade of grapes could be used for syrup, reserving the finer grades for fine grape juice for which a market could be built up as for wines or raisins. It should be possible to produce Muscat juice, it is estimated, so that it can be sold the consumer for from 20 to 25 cents the quart. The finer grades would have to be sold for at least 50 per cent. higher price, so that the grower could obtain not less than \$30 a ton for his fruit.⁷

Vinegar can be made from part of the wine grapes. Well-made wine vinegar is considered the best of all vinegars and commands the highest price. It has a higher flavor and greater strength than cider vinegar and as it contains about

twice the legal standard of acetic acid, it is as economical to use even though costing the consumer more. Both red and white vinegars are made, but the white wine vinegar is usually preferred because of its lack of color. It is estimated that from one to two million gallons of good vinegar from wine grapes could be profitably marketed which would return to the grower from \$15 to \$20 per ton for his grapes.⁷

By-products. In using wine grapes for syrup, grape juice or vinegar, from each ton of grapes would remain from 250 to 350 pounds of pomace or solid matter, about 80 pounds of which are seeds. These, as already stated, can be pressed for oil while the press cake left can be used as stock feed, or tannin derived from it.^{1, 7 and 14}

The conclusions of the California official viticulturists appear to be somewhat pessimistic as to the probability of readjusting profitably the wine grape industry to other uses of the grapes, because of the time required. The raisin experience, however, shows what can be done when intelligent coöperation and business resourcefulness get behind a difficult proposition. The experts declare that no hard and fast method of procedure can be marked out because the readjustments will depend upon the condition of the vineyards and their locations. Grafting in some cases will transform vineyards from wine to raisin grapes; some crops can temporarily at least be sun-dried; a part can be used for grape syrup and vinegar, a part for grape juice. In some of the vineyards the soil is adapted, after due preparation, for other fruits.⁷ Otherwise it will have to be diverted to entirely different crops.

MISCELLANEOUS USES OF THE GRAPE

For domestic purposes, grapes offer one of the most delicious sources of delicacies. Home made grape juice has already been mentioned. Pickles, conserves, jellies, paste, catsup, marmalade, grape "butter," syrup and "mincemeat" are all possible to the family table as a valuable addition to food where grapes are abundant. The United States Department of Agriculture has published several bulletins with detailed information on these uses of grapes.^{1, 9, 15, 16, 17}

Before the war experiments were well under way in Italy for producing non-alcoholic wines. The chemist, Prof. Eudo Monti of Turin had been devising methods which were said to produce good beverages without alcohol. One method concentrated the press-out grape juice (must) by freezing. This produced ice and also a solution of all the original elements of the grape in a greater density. This grape juice thus thickened by freezing out a part of the water of the grape is treated with a watery extract from the waste of the grape which adds acids and improves the taste. For long keeping the juice must be slightly pasteurized.

Must was also concentrated in vacuum by Prof. Monti producing a grape honey that can be used as a spread with bread or thinned with water for drinking. None of these products reached the commercial stage before the work was interrupted by the war.^{18 and 19}

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WHY WINE AND BEER SHOULD NOT BE EXEMPTED FROM PROHIBITION

A STATEMENT by the president of the Anti-Alcohol League of Montreal sums up the objections to exempting beer and wine from prohibition. It appears in *La Temperance* (June, 1919) a publication issued by the Franciscan Temperance Missionaries with the approval of their ecclesiastical superiors.

"The League has no confidence in the success of the proposed beer and wine regime. If it were solely a matter, as some like, erroneously, to say, and as seems to be too easily believed, of family use or at meals at the hotel or restaurant, of wine and beer bought of the grocer or wine merchant, the League would say, "Let us yield and try it." But the situation is altogether different. What is proposed is the sale by glass in establishments absolutely like those of the present time except for the bar."

M. La Fontaine goes on to declare that the *system* of liquor selling remains in the same hands as before, the hands of those "who were the distributors of alcoholic poisons and the cause of the disorders and abuses which brought the old regime into universal dispute. . . . Establishments selling beer and wine will easily become places where spirits illegally manufactured will be sold easily and continuously. . . . There remains in the sale of wine and beer by the glass the invitation to increased consumption, to idleness, disorders and crimes. Instead of alcoholizing oneself in getting drunk quickly with several glasses of whisky a day the drinker will alcoholize himself or will even get drunk more slowly but just as surely with two, four, ten, or fifteen glasses of beer a day.

"We pass in silence the immense waste of money at a time when living is so expensive that this wine and beer scheme as organized will inevitably entail, and will not speak further of the disorders it will necessarily entail, the same causes producing the same effect. But there is one matter that should be thought of—the desperation of capital to dispense its merchandise by a paid organization and publicity richly remunerated. How long are people going to allow themselves to be deceived, made fools of and exploited for the profit of a few individuals? Who does not see in the extraordinary activity displayed to retain the license regime and the vast expenditures of money for publicity that regardless of good sense puts out the most deceitful statements, a capitalistic movement for lining up labor against prohibition in order to take possession of the worker's wages and live at his expense leaving him finally in the gutter with ruined health?"

IS TWO AND THREE-FOURTHS PER CENT BEER INTOXICATING?

The agitation organized by the brewing interests to have beer of two and three-fourths per cent. alcoholic content by weight declared non-intoxicating and, therefore, exempt from the federal prohibition laws, made necessary a review of the scientific evidence on this question. The resulting compilation made by the Scientific Temperance Federation is published here in the belief that it may be useful as reference material to persons seeking information on this question. The brewing interests presented the New York court with a printed volume of affidavits to the effect that this "2.75 per cent. beer" is non-intoxicating. It is these to which reference is made in the following pages as "complainants' affidavits," and much of the evidence presented here relates to the arguments advanced by the brewers for declaring this beer non-intoxicating.

The data here published may also be found (beginning with Section II) in Part 3 of the report of the Hearings before the Sub-Committee of the United States Senate Committee on the Judiciary, on the bills to prohibit the liquor traffic and for the enforcement of such prohibition and the war prohibition act. All readers will bear in mind, of course, that the "two and three-fourths per cent. alcohol" in beer is measurement by weight and is equivalent to 3.3-3.5 per cent. by volume as always hitherto reckoned in government and popular usage.

The facts here cited in evidence of the intoxicating power of beer of this alcoholic strength would apply with equal or more force to the 4 or 5 per cent. beer for which contest is being made in some states.

I. *Alcoholic poisoning, intoxication, alcoholism, are terms often used interchangeably in medical literature. The latter recognizes two forms of this "poisoning," "intoxication," or "alcoholism," viz., the acute and the chronic. They are referred to by such terms as "acute alcoholic poisoning," "acute and chronic alcoholic intoxication," "chronic alcoholism."*³

Acute alcoholic poisoning, or acute alcoholism or acute alcoholic intoxication is what is popularly termed drunkenness.

Chronic alcoholic poisoning, or intoxication, or alcoholism is the slow poisoning which may occur without the drinker ever becoming drunken in the sense of showing incapacity for taking care of himself under ordinary conditions. It results from a long-continued habitual use of alcohol. The user often does not consider himself an excessive or immoderate drinker. The quantities of alcohol consumed which vary with individuals, in time produce in chronic alcoholism morbid conditions or health deterioration.

Dr. Magnus Huss,⁴ the Swedish physician who first clearly defined chronic alcoholism, wrote thus of the two forms of alcoholic intoxication:

"Drunkenness, this manifestation of acute intoxication by alcohol, is far from always or necessarily preceding the series of disorders that constitute chronic alcoholism. Often the latter runs its course independently of any symptom of drunkenness. It manifests itself after a longer or shorter time, several months or several years from the time when excess began. Its beginning is insidious. In general it begins with digestive troubles . . . then come nervous disorders . . . disposition becomes irritable; the expression changes. . . ."

Dr. Ley,⁵ Chief Physician of the Sanitarium of Fort Jaco, Belgium, thus describes the two forms of alcoholism:

"Then begins a period of organic pathological changes.

"Whether found in beer, wine, or spirits, alcohol remains a chemical substance of well-defined formula, and its toxic action in the human system is the same.

"You all recognize the symptoms of alcohol poisoning because 'drunkenness' is really only acute and rapid poisoning by a toxic substance. . . ."

"Slow and chronic intoxication without drunkenness is not less serious. It is entirely possible to produce it by beer."

Dr. Jacques Bertillon,⁶ long Chief of the Paris Statistical Bureau:

"One can die of alcoholism without being a drunkard.

"Every day people die of alcoholism without ever having been drunk.

"What happens with such a drinker is practically what happens to his brother, the morphine addict. He began by taking regularly small enough quantities of alcohol. Then he experiences the phenomenon of habituation seen with many other poisons; he no longer gets the expected excitation from the same amount; so he increases the dose. To custom succeeds necessity. If he is deprived of his usual excitant he falls into a state of depression. He resumes the use of this preferred poison, increasing the dose a little. Usually, *he does not get drunk*, but he slowly poisons himself. He becomes alcoholic without knowing it. This form of alcoholism is the most frequent and the most dangerous of all because the most insidious."

Dr. Débove,⁷ Dean of the Paris Faculty of Medicine and Dr. Faisans, Physician to Hotel Dieu [hospital]:

"Alcoholism is chronic poisoning resulting from the habitual use of alcohol, even when this is not taken in amounts sufficient to produce drunkenness. . . .

"The man who daily drinks an immoderate amount of wine, cider, or beer becomes as surely alcoholic as the one who drinks brandy."

William C. Sullivan, M. D., Medical Superintendent of the Rampton (England) Lunatic Asylum⁸:

"There are two opposed types of drinking which give rise to alcoholic excess, and which, having regard to the main factor in each type, we may most conveniently term industrial drinking and convivial drinking.

"In the first or industrial mode of drinking, where alcohol is taken for the sake of its effect in causing a temporary diminution of the feeling of fatigue, it is necessary that the dose should be moderate, so that this action may be obtained in maximum degree and may not be neutralized by the disturbing influence of the drug on other functions; and it is further necessary that the dose should be repeated within a short time so as to keep up the aesthetic effect and prevent the onset of depression. In industrial drinking, therefore, the alcoholic action is constant, and is for that reason peculiarly apt to induce the tissue changes of *chronic intoxication*; but it is not intense, and hence is not primarily a cause of drunkenness.

"In convivial drinking, on the other hand, where alcohol is taken as an emotional exhilarant, there is no such reason for moderation of dose, and hence, in individuals of low culture, this form of drinking is likely to lead to gross *drunkenness*. But as the opportunities for its indulgence are ordinarily intermittent, such drinking is usually not continuous and does not tend to cause chronic intoxication. As may readily be supposed the industrial drinker is very apt to indulge also in convivial excess when he gets the chance; but the converse is not true—convivial drinkers may, and in a great many occupations must, abstain altogether from the use of alcohol as an aid in their work."

Acute Alcoholic Poisoning, drunkenness, includes several well-recognized stages. The Advisory Committee of the British Board of Control clearly described ("Alcohol," 1918) the successive stages of this acute intoxication or poisoning.

P. 85. "The symptoms of ordinary drunkenness . . . result from a progressive impairment of the functional activity of the nervous centres in the order from the highest to the lowest, that is to say beginning with the centres of the brain that have to do with complex mental processes such as those involved in critical judgment and self-control, and subsequently with deepening intoxication, affecting lower levels until finally a state of stupor is

reached. In this final stage of intoxication when the drinker in common parlance is 'dead drunk,' the nervous centres which control such vital activities as the movement of the respiratory muscles are more or less interfered with as shown . . . by the snoring or 'stertorous' breathing which accompanies the unconsciousness of drunkenness. Ordinarily this condition passes into a state of deep sleep, after which the patient returns to normal. In some cases, when the quantity of alcohol taken has been very large, these vital centres are so gravely affected that the drunkard may die from failure of respiration."

P. 34. "Three main stages of intoxication may be broadly distinguished corresponding to the invasion by the narcotic of the three principal levels of cerebral function."

"The *first stage* that in which the highest or intellectual brain level is alone directly affected."

P. 32. "Of all intellectual functions that of self-criticism is the highest and latest developed. . . . It is the blunting of this critical side of self-awareness by alcohol and the consequent setting free of the emotions and their distinctive impulses from its habitual control that give to the convivial drinker the aspect and reality of a general excitement. . . .

P. 33. The lack of self-control is clearly discernible in every stage of alcoholic excitement . . . as the drinker surprises the observer . . . by smiling or laughing aloud at some very small joke or by remarks or other actions which betray suspension of his habitual self-control. The weakening of his critical self-awareness is especially revealed by the fact that such jovial remarks as he now utters seem to him to shine with a lustre hardly perceptible to the normal mind; hence the tendency, perhaps the most characteristic and constant feature of the first stage of drunkenness, to flippant whimsical utterances, which, like the rest of the subject's behaviour, betray the blunting of his critical self-consciousness and his sense of personal responsibility.

P. 34, 35. "The second stage is that in which the functions of the intermediate level, sense-perception and skilled movement, are invaded and disturbed. The drinker begins to show a certain clumsiness of behaviour. If he is self-observant, he notices that he is liable to make ill-adjusted movements; on setting down his glass it makes a more violent contact with the table than he had intended; on rising he may stumble against a chair, perhaps upsetting it; on lighting a cigarette he may break the match which he essays to strike; in speaking he may slur a word or drop an *h*.

"His perceptions are impaired. His field of self-observation is narrowed; the several senses work in relative isolation from one another; the fineness of his ear, of his taste, his touch, his vision is blunted; he may momentarily see objects, and becomes relatively indifferent to heat and cold, to the flavour of his food and the aroma of his wine, to the glare of the lights and the strains of the music, and the stridency of his own or his neighbor's voice. The impairment of his intellectual functions being further advanced than in the first stage, and the functions of the third or lowest cerebral level, that of the emotions and instinctive impulses, being still relatively intact, he is apt to give way in clumsy but violent displays of emotion characterized by the exclusive dominance of each primary emotion in turn; and he passes quickly from anger to affection, from boisterous merriment to tears, from elated boasting to despondency, each unrestrained and modified by that blending of other emotions which expresses the reaction of the intellectual faculties upon them.

"At this stage the drinker is apt to feel that his bodily movements occur without his initiation or intention—they escape from him rather than proceed from his will. He may, *e. g.* become aware of wearing facial expressions, of making gestures or of uttering remarks, which he did not intend and cannot wholly repress, but which seem to him to be executed by his members of their own initiative."

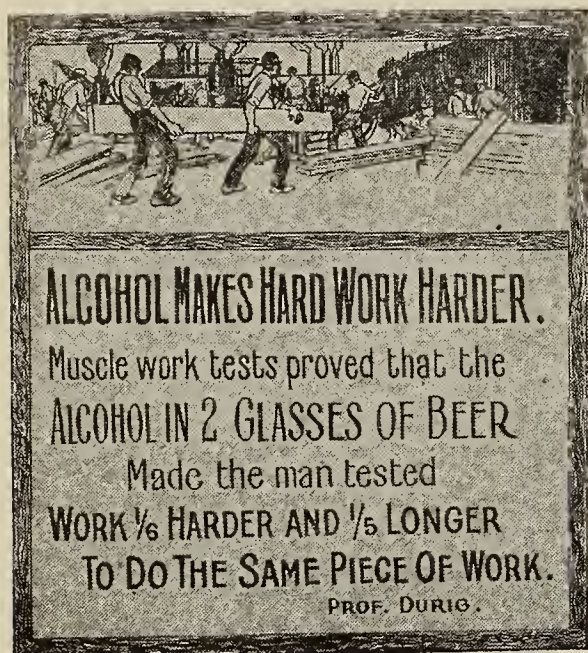
P. 35, 36. "In the third stage, the intellectual processes of judgment and self-criticism and control are virtually suspended; the functions of sense-perception and skilled movement are grossly impaired, and the emotional tendencies themselves are invaded and weakened, so that only strong appeals to them suffice to evoke any response and, in their absence, the drinker sinks inert and nerveless into a heavy sleep, which lasts until the alcohol absorbed by the nervous system has been oxidized or carried away in the blood and consumed by other tissues."

II. *Quantities of alcohol no larger than those in beverage amounts of 3.3 per cent. beer (2.75 per cent. by weight) have been shown by careful experimental tests to produce signs of characteristic physical and mental impairment indicated by the British Board of Control's Committee as stages in acute alcoholic intoxication or drunkenness.*

1. The persons experimented upon have sometimes observed *subjective* effects.

The subjects of experiments by Dodge and Benedict⁹ were given 1 ounce or 1½ ounces of alcohol.

An ounce of alcohol would be an equivalent to that in 1.9 pints of 3.3 per cent. beer (2.75 per cent. by weight). The following results were noted:



FROM "DRINK AND THE MAN WHO WINS"
STEREOPTICON LECTURE
—The Scientific Temperance Federation

Subject II. A moderate user of alcohol. After taking one ounce of alcohol had a slight dizziness when he moved, sleepy sensation, tingling feet, felt "on the edge of a jag."

Subject III. An habitual drinker. After the dose of one ounce of alcohol, face is flushed, feeling of well-being intensified.

Subject IV. Habitual drinker. Occasionally took 2 pints of beer at dinner. After 1.5 oz. of alcohol equivalent to 2.8 pints of 3.3 per cent. beer (2.75 per cent. by weight), he was dizzy, had hazy vision.

Subject VII. Habitual drinker. After 1 oz. of alcohol was sleepy, fell asleep during one experiment; noticed a feeling of irresponsibility.

Subject IX. Accustomed to drinking 3 bottles of beer a day. After the 1½ oz. dose of alcohol, equal to 2.8 pints of 3.3 per cent. beer (2.75 per cent. by weight) was talkative.

Subject X. The largest amount he had ever drunk was 2 glasses of champagne at dinner. His dose of alcohol was taken an hour after a meal. After 1 ounce of alcohol, the amount in 1.9 pints of 3.3 per cent. beer (2.75 per cent. by weight), he had feelings of discomfort, difficulty in controlling attention, a heavy sensation in the eyes which seemed to move down when required to move straight across.

2. *Objective* results of experimental tests with small amounts of alcohol are precise and measurable, not dependent on the drinker's sensation.

The laboratory tests to which these men were subjected showed¹⁰ that 1 or 1.5 ounces of alcohol, the amount in 1.9 to 2.8 pints of 3.3 per cent. beer (2.75 per cent. by weight), impaired combined nerve and muscle action as proved by

tests of important reflexes like the knee-jerk and involuntary protective movement of the eye (knee-jerk showed 10 per cent; effectiveness impaired 46 per cent., eye movement showed 7 per cent.; extent of movement decreased 19 per cent). The extreme effect upon the knee-jerk made it impossible to use the larger amount of alcohol. The speed of eye and finger movements was slowed (eye 11 per cent.; finger 9 per cent.) so that the experimenters concluded that there is probably "widespread impairment of motor coördination" in the body "as a result of moderate doses of alcohol." (P. 185.)

Mountain Climbing.—Tests by Durig¹¹ in hill climbing after taking 1 oz. of alcohol, the amount in 1.9 pints of 2.75 per cent. beer (weight), showed that he expended 15 per cent. more energy and 21.7 per cent. more time in climbing a given hill on the alcohol than on the non-alcohol days, other conditions being the same. He interpreted this result to mean that "it was as if the effect of previous training were lost temporarily. The experienced climber is reduced by the dose of alcohol to the level of a beginner and makes an unduly large number of badly directed or ill-judged movements" which is characteristic of one of the stages of intoxication. (See page 89.)

Precision.—Tests in precision carried out by Totterman (1916)¹² showed effects already noted as evidence of a stage of intoxication from the use of still smaller quantities of alcohol (25 c.c.) the amount in about a pint and one-half (3 glasses) of 3.3 per cent. beer (2.75 per cent. weight). The alcohol was taken *11 hours before* the tests were made. The effects were (1) a falling off in amount of work done of from 10 to 15 per cent.; (2) an increased loss from fatigue and earlier appearance of fatigue on the alcohol days; (3) an after effect lasting more than 24 hours showing itself by a steady decline of work during the alcohol periods and poorer work on the first non-alcohol days immediately following the first alcohol period. (For illustration, see page 90.)

Accuracy.—Recent experiments were made by Curt Gyllenswärd¹³ testing the effects of small quantities of alcohol on accuracy in touching a mark. The amounts of alcohol used were respectively 5, 10, and 30 c.c. corresponding to the amounts in approximately 5 oz., 10 oz., and 1.9 pints of 3.3 per cent. beer (2.75 per cent by weight). (See page 61.)

In every test in which the alcohol was taken, both when the subject knew and when he did not know he had taken it, his skill in touching the mark with his eyes closed was reduced. In seven experiments with the smallest amount of alcohol, when the subject did not know when he had taken it, his average loss of precision was 32 per cent.

By contrast, on some of the non-alcoholic days, after insufficient or restless sleep, with a slight cold or other unavoidable disturbance, there would be a falling below the average in skill, but these losses never exceeded 10 per cent.

The foregoing *subjective* and *measurable objective* results of using amounts of alcohol no larger than those in ordinary beverage quantities of 3.3 per cent.

beer (2.75 per cent. by weight) appear to fall definitely within the class of evidence of early stages of acute intoxication as described.

They appear even to fall within the definition of intoxication said to have been submitted by counsel of the complainants, for they show “a loss of the ordinary control of the mental faculties or bodily functions to a substantial extent.” (Par. 198.)

III. *The rate of absorption of alcohol does not depend upon the degree of concentration, that is, beer is not necessarily absorbed more slowly than the stronger alcoholic liquors.*



EFFECT OF ALCOHOL ON ABILITY TO DO WORK OF PRECISION
Days when no alcohol was taken, white; alcohol days, black.
The vertical line of numbers signifies the number of needles.
The work of each five-minute period during the 20 minutes can be seen accordingly.—(Totterman.)

The following table is from a report of experiments in which the time of absorption of alcoholic solutions of varying strength was precisely determined:

ABSORPTION OF ALCOHOL ACCORDING TO DIFFERENT CONCENTRATIONS

CONCENTRATION OF ALCOHOL USED	PERCENTAGE OF ALCOHOL ABSORBED FROM DUPLICATE LIGATED LOOPS OF INTESTINES				AVERAGE PER CENT. ALCOHOL ABSORBED
	EXPERIMENT 15	EXPERIMENT 18	EXPERIMENT 21	EXPERIMENT 32	
5	86.6	87.2	64.9	12.0 (?)*	79.6*
10	86.8	97.5	92.1	100.0	94.1
50	73.8	90.2	65.2	89.3	79.6
95	63.3	79.8	77.4	100.0	80.1
Average	77.6	88.7	74.9	96.4*	83.3

*Exclusive of 12 per cent., experiment 32.

Author's conclusion. "The absorption is scarcely influenced by the con-

centration of the alcohol, although a 10 per cent. solution is absorbed somewhat better than 5, 50 and 95 per cent. solutions.”¹⁴

IV. *Dilution of alcohol as in weak beer does not make it less injurious after absorption into the blood.*

The injury to the tissues of the body depends on the percentage of alcohol in the blood.

Experimental tests show that this percentage is the same after equal amounts of alcohol whether it be given in doses of weak beer, containing as little as 2½ per cent. alcohol, or of whisky, 43.6 per cent. alcoholic strength.

The Advisory Committee of the British Board of Control say on this point (p. 89) that available evidence gives little support to the view that the inebriating action of “a given dose of the drug may differ to some extent according as it is taken in a strong or weak solution.” The evidence they cite is that of Widmark.¹⁵

In one of Widmark’s experiments the alcoholic content of the blood at the end of the first hour, after taking alcohol in different degrees of concentration was practically the same in each case as shown by the following table :

DOSE OF ALCOHOL	ALCOHOLIC STRENGTH OF SOLUTION	AMOUNT OF LIQUID DRUNK	PCT. IN BLOOD AFTER 1 HR.
30 c.c.	45. p.c. (Pilsener beer)	.66 qt.	0.049
30 c.c.	2.25 p.c. ” ”	1.5 qt.	0.050

In another series of experiments, Widmark used different concentrations of whisky corresponding to alcoholic liquors of various alcoholic strengths, and reported the percentage of alcohol in the urine. (He had previously proved the latter to correspond almost exactly to the percentage of alcohol in the blood.) Here also he found the percentage of alcohol to be the same in a bodily fluid whether the alcohol was taken strong as in whisky, or diluted to the alcoholic strength of wine and beer.

DOSE OF ALCOHOL	ALCOHOLIC STRENGTH OF SOLUTION	AMOUNT OF LIQUID DRUNK	PCT. OF ALCOHOL IN URINE
21.8 c.c.	43.6 per cent.	50 c.c.=1 2-3 oz.	0.055
21.8 c.c.	21.8 ” ”	100 c.c.=3 1-3 oz.	0.054
21.8 c.c.	14.5 ” ”	150 c.c.=1-2 of 10 oz. glass	0.057
21.8 c.c.	8.7 ” ”	250 c.c.=8 oz. (1 small tumbler)	0.056
21.8 c.c.	4.4 ” ”	500 c.c.=16 oz. (2 small tumblers)	0.058

Thus the Widmark experiments show that when the original amount of alcohol is the same, the percentage of alcohol in the blood, by which it is carried to the tissues of the body, is practically the same after a given time, whether the alcohol is taken strong as in whisky or diluted as in 2.25 per cent. beer which was weaker than the proposed 3.3 per cent. (2.75 per cent. weight) “war beer.”

Referring to the Widmark experiments, the *Brewers’ Journal* (Apr. 1, 1916) which describes itself as “the representative paper of the Brewing, Malt and Hop Trades,” says (p. 230) :

“So far as the alcohol content of the blood is concerned, it appears to be a matter of indifference whether the alcohol is consumed in a dilute state (beer) or in a form of spirits.”

V. *It is not necessary that the amount of alcohol sufficient to cause drunkenness be taken into the stomach at one time.*

Its absorption into the blood is rapid; its oxidation is slow.

"Ordinary amounts of alcohol in any dilution are quickly absorbed and will usually have disappeared from the stomach in less than half an hour."¹⁶

"The absorption of alcohol occurs rapidly, mainly from the small intestines, and is practically independent of the quantity." Vollmering (1912) is cited as finding absorption practically complete in one hour.¹⁷

"Those who are accustomed to alcohol oxidize it all in 7½ hours, whereas those who have been abstainers require twice that time." Voltz and Dietrich are cited (1914) as giving dogs 2 c.c. of alcohol per kilogram of body weight, finding that after 10 hours only 73 per cent. of it had been oxidized. About 90 per cent was oxidized in 15 hours and from 18 to 20 hours were required for the complete oxidation.¹⁸

If, therefore, continued drinks of an alcoholic beverage are taken before oxidation of the alcohol in earlier drinks is completed, it would appear that by drinking at frequent intervals it would be possible to introduce amounts of alcohol into the blood that would produce signs of intoxication even with beverages of mild alcoholic strength.

VI. *The percentage of alcohol in the blood at the time of "deep" or "complete" drunkenness is not an index to intoxicating amounts of alcohol.*

Affidavits of the complainants based their conclusions as to the amounts of alcohol needed to produce intoxication upon a statement made by the Committee of the British Board of Control to the effect that "in cases of drunkenness in man the blood has been found to contain in one observation 0.153 per cent. of alcohol and in another instance when the intoxication was more pronounced, 0.227 per cent." (See page 116.)

Examination of the reports of the experiments from which this conclusion was derived showed different results according to whether the subjects were abstainers, moderate drinkers or heavy drinkers.¹⁹

The subject who had 0.15 per cent. of alcohol in the blood at the stage of "drunkenness" was an abstainer. The "drunkenness was deepest" at this period, but it "was well under way" 30 minutes after taking the alcohol when there was a smaller quantity in the blood, 0.131 per cent.

Another abstaining subject was "dead drunk" at the end of one and one-quarter hours when the percentage of alcohol in the blood was but 0.133 per cent., and remained so for another hour when the percentage of alcohol in the blood was 0.134 per cent.

With two moderate drinkers, the highest percentages of alcohol in the blood were reached in 2½, 1¾ hours respectively, but the percentages of alcohol were lower, 0.11 and 0.12. With two others there was 0.14 at the end of 1¼ hours and 0.08 at the end of the same period. There was no deep drunkenness among the moderate drinkers; but there were bad feelings, dizziness, sense of pressure in the head and eyes with sleepiness and fatigue.

With the six heavy drinkers, the highest percentages of alcohol in the blood were 0.11, 0.12, and 0.13 per cent.; the lowest, 0.05 per cent.; average 0.11 per cent. The maximum was reached in three cases in half an hour; in the other

three, in from 1.25 to 2.25 hours. There was no drunkenness among them, some talkativeness, a slight feeling of fatigue, a sense of pressure in the eyes being the chief effects noted.

These varied effects of doses of alcohol, equally proportionate to body weight, show the impossibility of drawing any general conclusion as to the amount of alcohol in the body that would cause drunkenness.

The percentage given by the Committee of the British Board of Control, "0.15," was that which produced deep or complete drunkenness in abstainers, according to Schweisheimer's own report.¹⁹ The highest percentage in moderate drinkers and heavy drinkers fell below this amount indicating their ability to dispose of the quantity of alcohol more quickly. Complete drunkenness, the Board of Control showed ("Alcohol," pp. 35, 36, 85) was the *final stage* in acute intoxication. Before this stage is reached there are the earlier stages of intoxication which might be and evidently were produced by similar amounts of alcohol.

Schweisheimer's records show that alcohol did not disappear from the blood until after 7½ to 12 hours. In one case a trace still remained at the end of 23¼ hours. During this entire period, therefore, the tissues of the drinkers were being subjected to the effects of alcohol, in varying amounts, but liable to cause the finer symptoms of alcoholic poisoning such as impaired self-control or lowered working ability, or, if the drinking were often repeated, to produce the changes that eventually result in the pathological conditions of chronic alcoholic poisoning. Indeed, four of the six heavy drinkers were at the time actually under treatment for disease.

VII. *As long as alcohol remains in the blood unoxidized, even though there may be no symptoms of drunkenness, it is a protoplasmic poison. Tissue intoxication or poisoning goes on before and after the height of concentration of alcohol in the blood reaches the drunkenness stage.*

"Whenever the proportion of alcohol in the circulating medium becomes greater than the cells can rapidly decompose, it exerts a protoplasmic effect. These effects are cumulative."²⁰

The prolonged and habitual consumption of alcohol though insufficient in quantity, continues Fitch, "to produce any of the outward or visible signs of intoxication is yet beyond the immediate oxidizing power of the cells and may result in considerable detriment to the tissues."²⁰

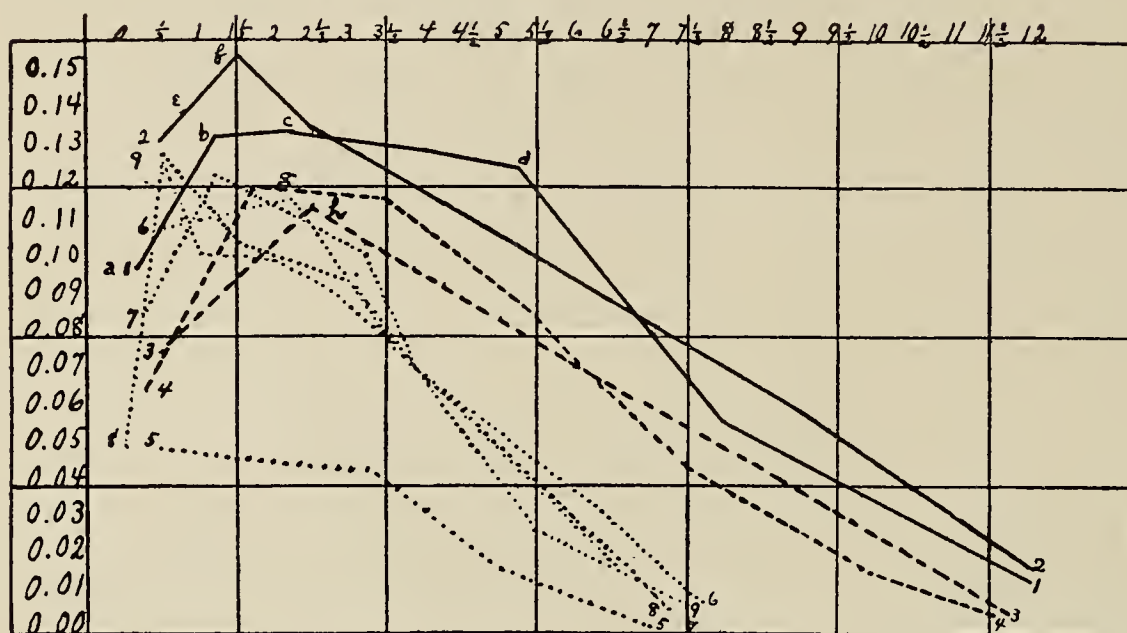
"Having a great affinity for water and being a coagulant of protein, alcohol tends to irritate and destroy cells. It is, therefore, a general protoplasmic poison."¹⁶

VIII. *Belief by the user that the alcohol in an alcoholic beverage does him no harm²¹ is not regarded as scientific evidence, because experimental tests have repeatedly shown that the subjects' feelings as to the effect of alcohol upon the operations tested were, as a rule, untrustworthy.*

"The man who conducted one series of experiments to determine the effects of regular consumption of alcohol supposed during the whole period covered by the experiments 'that not in a single instance had the outcome been unfavorable to alcohol.' Not until the arithmetical working out of the results after the experiments were over did he alter his conviction."²²

"In these shooting experiments we met distinctly again the well-known alcoholic delusion

PERCENTAGE OF ALCOHOL IN BLOOD
of
Abstainers (——), Moderate Drinkers (-----) and Topers (.....)
Per
Cent
of
Alcohol
in
Blood



—From Schweisheimer in *Deutsches Archiv für Klinische Medizin.* 1912-1913.

Chart shows "Percentage of Alcohol in Blood of Abstainers, Moderate Drinkers and Topers." Nos. 1 and 2 were abstainers, shown by the continuous lines; Nos. 3 and 4, moderate users, shown by the broken lines, and Nos. 5 to 9, toppers or hard drinkers, shown by the dotted lines. At *a* when the blood test was made on No. 1, half an hour after he began taking the alcohol, he was already dazed. At *b* he was drunk and at *c* very drunk. At *d*, after 5½ hours he first began to show signs of improvement.

No. 2 was confused when first examined, and also dizzy at *f*, the highest point of the alcohol percentage.

Nos. 3 and 4, the moderate drinkers, were less affected. No. 4 at *g* had heavy eyes and dull head; No. 3 at *h* was sick, dizzy and slightly confused. No. 5, a hard drinker, was a young man and showed practically no effects. His blood contained a much lower percentage of alcohol than did that of the other men, who were all much older.

concerning one's own abilities. When questioned concerning their impression of how well they had done, five believed they could shoot better under the influence of alcohol, three had observed an impairment and the others could give no opinion. Of the first group three actually had shown an improvement, and one even at the close of the experiment. At the maximum of the effect all three had done worse. The other two declined in precision as much as 10 per cent.

"The second group had, as they thought, shot worse under the influence of alcohol, but in one case only a very little. The others had been unaware of the very marked impairment of their work, reaching as high as 10 per cent. Ten of the men declared when questioned that they would rather have the alcohol when they were to shoot and the majority of these were badly influenced by it. Precisely in this self-deception which concealed from them the impairment of their ability lies, of course, a special danger."²³

In needle-threading experiments testing the effect of alcohol on coördination (Totterman) :

"It may be noted as a peculiarity that the work during the first four alcohol days seemed to go more slowly, but the counting showed it to be as good as that of the last days when no alcohol was taken. During the following days the work went on with less effort and I expected accordingly better results, but on counting up it proved to be the other way."²⁴

Durig had the impression that in climbing he worked more easily on the alcohol days. But results of the tests showed that he spent 15 per cent. more energy and accomplished 16.4 per cent. less per second, requiring 21.7 per cent. more time to climb the mountain than on non-alcohol days.²⁵

IX. *No generalizations regarding the intoxicating power of 3.3 per cent. beer can be deduced from the quantities said to be drunk by the brewery or other workmen without visible signs of intoxication* (Compainants' Affidavits, Par. 227, 237, 244, 250, 265, 272, 292, 301, 314, 317, 320, 322, 325, 328, 331, 333).

1. The observers apparently made no tests for the detection of the effects of alcohol. Carefully performed tests (See III) revealed effects known to indicate certain stages of intoxication and measurable impairment of efficiency.

2. The brewery workmen were apparently habitual heavy drinkers. Common observation and experiments (Schweisheimer, *et al*) have repeatedly shown that such drinkers are on the average less affected by amounts of alcohol that would cause drunkenness in others.

3. Even if these habituated drinkers can dispose of large quantities of alcohol without visible signs of mental disturbance, this does not prevent the slow poisoning of the tissues that eventuates in chronic alcoholism.

"It is certain that while the nerve cells of the habitual drinker become tolerant to the presence of alcohol, other body cells are less able to accommodate themselves to it, with the result that they are very liable to be injuriously affected if the development of tolerance in the nervous system leads, as it naturally tends to lead, to the taking of larger doses of the drug."²⁶

In proof of this, insured brewery workers have a mortality record suggesting the effects of chronic alcoholic poisoning which may proceed without signs of drunkenness.

Life insurance statistics from 43 American insurance companies showed excessive mortality among brewery workers at the following rates:

DEATH RATE ABOVE NORMAL

Proprietors, managers and superintendents of breweries . .	35 per cent.
Clerks in breweries	30 per cent.
Foremen, maltsters, beer-pump repair men and journeymen	52 per cent.

These figures quoted by Dr. Eugene Lyman Fisk, Medical Director of the Life Extension Institute, relate to *insured* men.

They "indicate that . . . brewery foremen, maltsters and the like have a death-rate higher than electric linemen, glass-workers, city firemen, metal-grinders or hot-iron workers, although there is nothing in the brewery business *per se* that is at all hazardous or unhealthy, aside from the possible temptation to drink and its collateral hazards."²⁷

The amount of 3.3 per cent. beer (2.75 per cent. by weight) declared by the affidavits of complainants to be used by workmen in breweries were said to be "8 or more glasses in a short time" (Par. 292); "8 to 10 glasses a day or more" (Par. 315); "8 to 12 glasses a day" (Par. 324, 331, 333, 335); "10-12 glasses in the afternoon" (Par. 289); "12 glasses in the course of a few hours" (Par. 317, 320); "12 glasses per day" (Par. 280, 324); "12 large glasses a day" (Par. 322).

The brewery worker who consumes even 8 half-pint glasses of beer in his working day gets in the course of ten or twelve hours 2.1 ounces of alcohol from the "war beer" (2.75 per cent. by weight). The man who drinks 12 half-pint glasses in "a day" or "an afternoon" of this 3.3 per cent. beer (2.75 per cent. by weight) gets in the course of his half or whole working day of 5 or 10 hours 3.16 ounces of alcohol, *an amount more than twice as large as that set by Anstie*²⁸ (1.5 oz.) as the amount that the body could dispose of in 24 hours.

"Applicants for life insurance who exceed 'Anstie's limit' were classified as steady free users. The mortality in that class was double that among the general body of policy-holders. . . . The man who passes 'Anstie's limit' goes with a sub-standard class and a poor sub-standard class at that. While individually he may escape, he belongs to a class that is fated to lose twice as many men in the same space of time as the general average."²⁹

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⁴Magnus Huss on *Alcoolisme* in Dictionnaire Encyclopédique des Sciences.

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²⁰William Edward Fitch, M.D., Major Medical Reserve Corps, U. S. A., in "Dietotherapy," 1918, p. 581.

²¹Complainants' Affidavits, Pars. 26, 94, 108, 259, 273, 281, 318, 325, 331, 334, 336.

²²R. Wlassak referring to *Psychologische Arbeiten*. Vol. III., p. 457.

²³E. Kraepelin, Prof. of Psychiatry, Munich. *Internationale Monatsschrift zur Erforschung des Alkoholismus*, etc., XXVI, Heft 10-11, 1916. The amount of alcohol used was equivalent to that in 2½ pints of 3.3 per cent. beer (2.75 per cent. by weight).

²⁴Gruber. *Die Alkoholfrage*. Vol III. 1. 1911. Alcohol used equivalent to the amount in 1.9 pints of 3.3 per cent. beer (2.75 per cent. by weight).

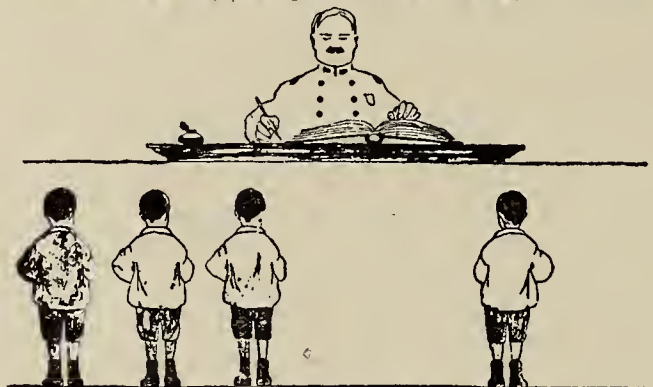
²⁵Committee of British Board of Control. "Alcohol," p. 92.

²⁶E. L. Fisk. "Alcohol. Its Relation to Human Efficiency and Longevity." 1917. pp. 22-24, 32, 33.

²⁷Anstie, *The Practitioner*. Vol. XIII. p. 17.

CHILDREN IN MISERY PARENTS' DRINK TO BLAME IN AT LEAST THREE CASES OUT OF EVERY FOUR

Handled by the Chicago Juvenile Protective Association



75% DUE TO ALCOHOL

The Child's Birthrights are
**To be Well Born
 To be Well Cared for
 To be Well Trained**

DRINK SPOILS ALL THREE

Statistics compiled by Gertrude H. Brittan, Superintendent
 Chicago Juvenile Protective Association, from 1,739
 Cases of Adult Delinquency, Jan. 1-June 30, 1910.

Size 24x36 in. The Leaflets, which are a miniature reproduction of the Posters, are to be read and passed on.

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 BOSTON, MASS.

SERIES E. No. 15.

THE PROBATION OFFICER'S SHIFTING SCENES

"THE work of the probation officer has become an interesting and important feature of court work. It rests primarily upon the principle that it has to deal with *normal* persons who have committed offences, but who have not become hardened offenders or impervious to appeals to their better selves. Probation does not content itself with merely warning that probationer and pointing out to him the danger of failure to make effort; it actively assists and encourages him in his efforts in every way that it can. The assistance given is that of a friend, and is not a driving force of threat or compulsion. It must, therefore, deal with the normal mind." Thus the Eighth Annual Report of the Massachusetts Commission on Probation defines its aim.

A very large part of the work of the probation officers in Massachusetts has been with those arrested for drunkenness. In 1918 there were 92,000 arrests for drunkenness in Massachusetts. Of these 42,000 were in the jurisdiction of the Boston Central Municipal Court. Three-fourths of these cases were released by the probation officers without the necessity of coming to court. Of the remaining 10,000 several thousand more were turned over to the probation officers by the judges. The seriousness of this phase of probation work was thus stated by the Probation Commissioners in their 1916 report:

"What shall be done with the man who drinks and wastes his earnings, but who yet is not idle and worthless when sober, remains a great problem. Many men who are hard and honest workers, kind to wife and children when sober, will at intervals give way to their passion for drink and temporarily become either nuisances or positively dangerous. At such times the public interest demands that they must be restrained in their liberty. We have to treat them as criminals, and yet as a rule these men are not of criminal tendencies in other directions. They are not dishonest or otherwise vicious. They work most of the time, and their periodical lapses incapacitate them only temporarily. Mere punishment is of no avail, as they are really more diseased than wicked—men who ought, perhaps, to be regarded as patients rather than as criminals. Our courts have been endeavoring by probationary methods to keep such men at work and under restraint as much as possible by extending probation for several times before finally committing them. Commitment means confinement in some institution that has no facilities for their treatment other than keeping liquor from them for a time. Drunkenness as a crime is in a class by itself. We can offer no remedy, but must be content with the statement of the situation as it affects our work and that of the courts."

The probable effect of prohibition upon the work of the probation office was outlined by Chief Probation Officer A. J. Sargent of the Boston Municipal Court shortly after the war prohibition measure went into effect (*Boston Herald*, July 20, 1919):

"A great deal of the work of handling drink cases was necessarily routine in its character and in some respects was hurriedly done. Under the new régime, with drunkenness greatly reduced, we can become real probation officers and render the community the service it needs.

"For example, the care of the probationers is the most important part of our work, and is that for which the probation system was created. We have at the present time in our courts more than 3,000 on probation, both men and women, arrested for all manner of offences. The whole time of nine or ten probation officers has been devoted to their supervision. When a man or woman tries to look after 300 persons of this type, you can easily see that some of the work won't be done as it should be. Hereafter we will be able to give this line the attention it deserves.

"We can also look more closely after the collection of the non-support and other moneys. We can follow up the hundreds of domestic relation cases better, put more effort into our employment agency, get better results in straightening out the family finances, procuring homes for illegitimate children, culling out the diseased and the mentally defective, and attending to the dozen and one other things that we are called upon to perform."

As to just what effect prohibition will have on other offenses than drunkenness Mr. Sargent said it was too early to speak definitely. "Thus far," he said, "it has not affected our non-support cases, although it will doubtless begin to show before long. Some other offenses such as assault and battery, which are closely allied to the drink problem, are likely to see a diminution. To offset this there will probably be an increase of some other offenses because of the illicit business that will be conducted.

"The penal institutions are fast being depopulated by the disappearance of the drunks."

The total arrests for drunkenness in the State of Massachusetts for the entire month of July, 1919, were 2,319 as compared with 7,218 in July, 1918, and 11,444 in July, 1917, the last being the normal number under license, according to a statement by Herbert C. Parsons, Deputy Commissioner. The figures for 1919, although they include 533 arrests made July 1 resulting from the drinking at the close of the license régime, represent a decrease of practically 80 per cent from the arrests of July, 1917.

A Somerville (Mass.) probation officer, W. P. Jones, is reported as saying (*Boston Herald*, June 16, 1919):

"I have interviewed hundreds of the victims of the liquor habit during the past few months, including the men themselves and their families, and almost all of them welcome the idea of prohibition."

Warren F. Spaulding, secretary of the Massachusetts Prison Commission, states (*Boston Herald*, June 6, 1919) that according to Boston police statistics there had been occurring a change in the proportion of young and old men arrested for offenses against the public order. More than 70 per

cent. of these were cases of drunkenness and a very large proportion of the others were due to drink.

The larger proportion of the older men arrested had very definite causes. Formerly the man who became intoxicated occasionally was "able to keep his job. But the number of total abstainers has so increased of late years that employers are able to drop the man who drinks even occasionally, especially if his Saturday night spree last over until Monday.

"When a man loses his job on account of drink, he becomes discouraged, loafes about the saloon, drinks more, is arrested more frequently, and finally becomes an habitual offender. On the contrary, employers hire total abstainers in preference. That induces many to let drink alone, especially the younger men.

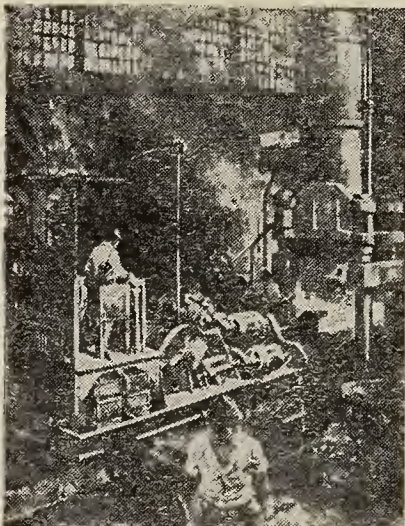
"The decision of the Supreme Court in the McNichol case has led employers to consider drinking men undesirable. An employe, known to be quarrelsome and dangerous when intoxicated, attacked a fellow-employe, injuring him so that he died. The Supreme Court decided that the employer was responsible, under the workmen's compensation act. The decision has made employers wary of drinking men."



**ALL HANDS TESTIFY !
3½ TIMES AS MANY SMALL
ACCIDENTS "HAPPENED"
AMONG INSURED DRINKERS,
AS AMONG ALL INSURED WORKERS.**

PER 1000 MEN. *Leipsic Sick Benefit Society Reports, 1910.*

Accidents in Steel Mills



Fell off 54 per cent
in the first 6 months
after Coatesville (Pa.)
went "Dry" as compared
with the same 6 months
of the preceding "Wet" Year.

—From Stereopticon Slides The Scientific Temperance Federation, Boston.

SOME COURT INDUSTRIAL ACCIDENT DECISIONS INVOLVING DRINK

IT is sometimes difficult for citizens of another nation to understand why the American people decided to make a clean sweep of the liquor traffic. One of the strongest recent influences has been the employer, and he, in turn, was greatly influenced by his liability under the laws enacted for workmen's accident compensation.

Here, for instance, are cases cited by a New York State official report in which the employer had to pay, notwithstanding the alcoholic condition of the worker when injured or his alcoholic habits. (New York Department of Labor "Court Decisions on Workmen's Compensation Law," July 1, 1914–August 1, 1916. No. 81, March, 1917.)

"Cases in which awards have been made have presented the question of alcoholism on the part of the injured employes. A keg rolling off a brewery wagon, struck the driver in the leg. He was taken to a hospital and died nine days later of delirium tremens and alcoholic meningitis. Award was made to his dependents. *Dunn v. West End Brewing Co.*, S. D. R., Vol. 5, p. 380. (The award in the Dunn case was affirmed by the Appellate Division, June 30, 1916.) In *Kierman v. Friestedt Underpinning Co.*, S. D. R. (Vol. 5, p. 390; 171 App. Div., 539), compensation was awarded to dependents of a workman who appeared at his place of work in the morning in such condition due to drinking that his foreman laid him off and who lost his life by a fall leaving the place.

"On Monday, April 27, 1915, he worked as usual. On appearing for work in the subway Tuesday morning dressed in his overalls, he was a little late and the superintendent told him he need not work. He excused him from work, not because he was late, but because he felt he had been drinking some and was not in fit condition to engage in the dangerous kind of work which he had been doing. He started to leave the subway and tripped and fell receiving the injury."

"An ice wagon driver, who had been a hard drinker for twenty-five years, was putting ice in a cellar. In connection therewith he drank a glass of whisky and part of a bottle of stout. He vomited what appeared to be blood, went home and became sick and six days later died in the hospital of delirium tremens. He stated to his wife, the doctors and a visitor that his ice tongs had slipped causing a cake of ice to strike him in the abdomen. Relying upon the testimony to the accident, which was almost, if not altogether, hearsay, the Workmen's Compensation Commission found that 'the primary and predominating cause of death was the injury to the abdomen, and the delirium tremens was a contributory cause in decreasing the resisting power of the individual.' The Appellate Division affirmed the award.

"In a dissenting opinion reviewing the testimony at considerable length, Justice Woodward said . . . 'On September twenty-eighth he died at the hospital, and immediate cause of death was stated to be "oedema of the lungs—de-

lirium tremens." The Commission found as a matter of fact that "the primary and predominating cause of death was the injury to the abdomen, and the delirium tremens was a contributory cause decreasing the resisting power of the individual." The Commission formally found that these injuries "resulted in his death"; that they were "accidental," and that they "arose out of and in the course of his employment." I have read the record with care and fail to find therein, upon the points enumerated below, anything which can be called evidence sustaining the finding and warranting judicial sanction of the transfer of funds from the treasury of the self-insuring employer to the pockets of the claimant and her children. There is literally no proof that the deceased sustained an "accident" while carrying ice; no proof that his "ice tongs slipped"; no proof that a cake of ice weighing 300 pounds, or any cake at all, fell upon him; no proof that he was struck in the abdomen on that day; no proof that any "accident" happened in the course of his employment which caused "an epigastric hemorrhage and a rigidity of the abdomen." There is little that can be called convincing demonstration that the sole cause of death was not delirium tremens and attendant manifestations, or that "injury" at any time had anything to do with Carroll's death in the alcoholic ward of the Bellevue Hospital six days after the alleged misadventure with the ice tongs, but it can hardly be said that the Commission's findings that death was not principally and solely due to excessive use of alcohol was without evidence tending to sustain it.' "

"In *Carroll v. Knickerbocker Ice Company* there was a question whether the delirium tremens of the employe resulted from an accidental injury or from alcoholism. In the following case, the opinion of which is written by Justice Woodward, who wrote the vigorous dissenting opinion in the *Carroll* case, the Appellate Division thoroughly goes into the subject and affirms an award to the dependents of an employe whose injury resulted in death from delirium tremens.

"Michael Sullivan was admittedly a time-worker in the employ of the Industrial Engineering Company. On July 25, 1916, he died in the Harlem Hospital, to which he had been admitted five days before. During his illness at the hospital the injured worker was delirious much of the time and was probably suffering from delirium tremens. The immediate cause of death was certified and testified by the attending physicians from the hospital to be 'lobar pneumonia, alcoholic poisoning.' "

The workman, hit by a piece of 3x8 timber, complained of severe pains in the shoulder, worked inefficiently the rest of the day, tried to work the next day, Saturday, but gave up and went home and to bed. "On Tuesday the patient was evidently suffering from some sort of delirium or alcoholism. The deceased had been in the habit of drinking moderately of beer, but just prior to the accident he does not seem to have been indulging in liquor to any appreciable extent. As his condition grew worse his wife despaired of her ability to keep him in doors, although his arm hung limply at his side. She enlisted the aid of a policeman in obtaining an ambulance, and he was taken to the Harlem Hospital. The ambulance surgeon testified that he found the patient 'weak and somewhat irrational.'

and so ordered his removal to the hospital, 'he had his left arm paralyzed, and he was seeing things about the room, so the family said. . . . He had a temperature of 100 and I admitted him as delirium tremens and alcoholic neuritis.' "

The hospital physician testified that the injury alone would not cause a man's death, but might contribute to it.

DELIRIUM TREMENS IN A MODERATE BEER DRINKER

Nevertheless the judge held that the Commission was within its rights in making the award to the dependents of the deceased who, it will have been noted, was a moderate beer drinker. The judge quoted with approval the following statement by Commissioner Mitchell as to the liability of delirium to follow an injury: "As a matter of fact delirium frequently follows an injury. A man need not be a hard drinker to become delirious after an injury. Men who are very moderate drinkers become delirious shortly following an injury. We have cases like this day after day. We have had doctors here and they agree that a man who is a moderate drinker may become delirious following not a very severe injury, and where the man dies in delirium and the immediate cause of his death was delirium tremens, and yet the cause of his delirium was the accident, the cause of his death was the accident."

The judge added: "Acceleration of death from delirium tremens through an injury bringing on or aggravating the condition of alcoholism or tremens, has been held to sustain liability for the death as produced by the injury both in tort actions and under that compensation statute. (McCahill v. New York Transportation Co., 201 N. Y., 221; Matter of Carroll v. Kinckerbocker Ice Co., 169 App. Div., 450; Matter of Winters v. New York Herald Co., 171 id., 960.) Therefore, even if the element of lobar pneumonia or weakened resistance, due to the impact of the water-soaked timber, is laid aside and the theory of death from delirium tremens accepted, the causal connection is sufficient under the authorities, and the award is not made under circumstances giving this court right or reason to reverse or remand. The Commission was within its discretion in concluding that 'the injury to the left shoulder was the cause of the delirium tremens and development of lobar pneumonia, and was the cause of his death.' " The award should be affirmed. Award unanimously affirmed. Sullivan v. Industrial Engineering Co., 173 App. Div., 65, May 3, 1916.

In the following cases of accident in a state of intoxication compensation was denied.

"Award of compensation was denied on account of intoxication of the injured employe in the case of a night watchman who was found lying helpless in his employer's plant and who died the day following: *Butler v. Sheffield Farms*, S. D. R., Vol. 6, page 368; and in the case of a night watchman who incurred a scalp wound from a fall: *Minnaugh v. Brooklyn Union Gas Co.*, S. D. R., Vol. 3, p. 466."

"In the following case the employe hailed a boat of his employer to take him off to the dredge upon which he was living and working but, being in an intoxicated condition, fell into the water before the boat reached him. He was drowned.

He had been spending the night in a saloon. In reversing an award of compensation the court drew a distinction between falling from the wharf and falling from the boat. . . . The decision reversing the reward did so on the ground that 'The controlling fact is that he had been ashore solely for purposes of his own and lost his life before he returned to his place of employment or to the premises of his employer and before he had gained access to the boat which was to carry him from the dock to the dredge.'

"The dock or place where he fell into the water was not owned or controlled by the employer. In no sense, therefore, had Berg reached the premises of his employer." *Berg v. Great Lakes Dredge & Dock Co.*, 173 App. Div., 82, May 3, 1916.

TEMPERANCE MEN AT WATERLOO

CHARLES BAILEY

FREQUENTLY during the world war, happily now terminated, reference was made to the historic struggle of Waterloo when Napoleon, Europe's scourge of a century and more ago, received his downfall at the hands of the forces of the allied powers of those days under Wellington and Blucher. Apart from other similarities, the very fact that some of the fiercest conflicts of the warfare of 1914-1918 occurred in comparative proximity to Brussels and Waterloo tended, perforce, to recall the decisive battle fought in the vicinity 100 years before. Memories of Waterloo are renewed also by the 104th anniversary of its occurrence June 18, 1915.

To students of the temperance movement and particularly those to whom the history of its progress in the adoption of personal total abstinence practice specially appeals, it is of interest to know that several of the leaders in connection with Waterloo's fateful struggle were virtually teetotalers. From prolonged military and kindred experience they had learned the truth that alcoholic indulgence is not conducive to the highest condition of body and mind. To secure success in the protracted and strenuous exhausting conflicts of those times it was requisite that their powers of endurance and of rapid, accurate judgment should be at their best. The use of intoxicants they knew to be fraught with immense peril. The many promising careers ruined by intemperate habits proved this. Had not on repeated occasions, as by the negligence of a drunken dragoon, a Corunna victory been greatly jeopardized through alcoholism's demoralizing, enervating power? Doubtless this was not unknown to these leaders. Hence their entire refusal or very slight patronage of the alcoholic cup.

While probably never absolutely an abstainer, the Duke of Wellington, the victor of Waterloo, was most abstemious in his habits as a rule, especially so when engaged in his active campaigns. In fact, then, he might have been classed practically as a teetotaler. Before 1815, during the operations of the Peninsular War, he had strongly condemned the proclivities of the troops to intoxication, and, at least on one occasion, had commanded the destruction of stores of alcohol which would be in the way of the men as they advanced on their route. In August, 1812, he gave a general order that, "as much of the sickness of the troops is attributed to the use of raw spirits by the soldiers in the hot season," the officers of the various regiments were to dilute the spirits issued by the commissary with four times that quantity of water, and if any officers omitted to comply with the instruction drastic measures would be taken for its enforcement. Eighteen years after the renowned achievement of this campaign, expressing to the Grenadier Guards his appreciation of regimental temperance societies, he spoke of the benefit to accrue from

encouragement of abstinence and efforts to stop intoxication. "The commanding officer thinks it right to inform the soldiers of the Grenadier Guards that his grace, the Duke of Wellington, has inquired whether any temperance societies exist among them, and his grace expressed his opinion of the great advantage which might result from the adoption of systematic measures to repress habits of intemperance and to encourage sobriety. His grace considers that nothing would be wanting in the character of the English soldier if the prevalent vice of drinking to excess could be eradicated." As stated by the late Dr. Dawson Burns, the British expert on temperance history, the "Iron Duke" took very little wine for years preceding his death.

Similarly, Napoleon often refrained from intoxicants completely for a time. Had he not usually been singularly temperate in his habits his continued preeminence would obviously have been a sheer impossibility. Personal experience upon one occasion of what a drunkard suffers physically and mentally after his debauch effectually prevented a tendency on his part in that direction afterwards. "I wonder," he wrote, "how a man who once gets drunk can ever think of doing it again." During a specially important administrative period of his career when for a long time he excluded alcohol completely, it is recorded that the energy he displayed and the labor he performed, tiring secretary after secretary, but himself apparently scarcely ever tired, excited the full admiration of all who had access to his privacy.

Other French commanders present at Waterloo would in all probability not have been living to take part in that sanguinary struggle but for that abstinent practice in the years previous. They had experienced the appalling hardships of the disastrous retreat from Moscow. Regarding that overwhelming catastrophe to the French forces in 1812, Larrey, the French surgeon attached to Napoleon, recorded that those only survived who either did not touch alcohol or did so very sparingly, indeed. The famous Grouchy was one of the officers thus preserved.

General Cambronne, who, with Marshal Ney, rode at the head of Napoleon's Imperial Guards in their magnificent charge at Waterloo, and to whom has been attributed the notable saying, "La garde meurt, et ne se rend pas," constrained by a narrow escape from disgraceful death through drunken madness in his youth, had never tasted alcohol in any form from that day onward. He was thus a rigid abstainer of many years' standing.

Among officers of less rank of pronounced temperance sympathies present at Waterloo was Colonel Lehmanousky, a Polish soldier of the utmost intrepidity and very wide military experience. According to his own statement spirituous liquor never crossed his lips. His physical strength and power of endurance were a striking testimony to the efficiency and advisability of non-alcoholic methods of life.

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From March 1 to August 31, 1919

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BOOK REVIEWS

WAR THRIFT. By Thomas Nixon Carver, professor of political economy, Harvard University. Issued by the Carnegie Endowment for International Peace. New York, London, Toronto, Melbourne and Bombay. Oxford University Press. 1919.

Peace came so suddenly that this monograph on the principles of thrift appeared too late to be of service in connection with actual war. It contains, nevertheless, a helpful treatment of the question of how to manage one's spending, which is perhaps no less important in these post-war days of industrial and economic confusion especially the chapter on the relation of war thrift to reconstruction. The following words are as true now as during war-time:

"The thrifty persons spends money and spends it freely for things of large and permanent value, or for things which leave him stronger physically, mentally, morally, or economically. Such people get on in the world while the thriftless people never improve their condition."

Here doubtless is one secret of what is being accomplished by many families in, for instance, the professional ranks where salaries remain at a level pronounced less than a living wage by certain industrial groups.

THE DOCTOR IN WAR. By Woods Hutchinson. Boston, Mass: Houghton, Mifflin & Co.

With his usual vivacity Dr. Hutchinson acquaints his reader with what he saw in the medical services of four nations, Great Britain, France, Italy and the United States, doing for the men under arms. While the provision and methods of caring for the sick and wounded were unsurpassed, it was the preventive work, the means employed to *keep* the men healthy and happy upon which the greatest stress is laid. The reader can but ask himself, suppose equal care were taken of civilians in peace, to furnish enough good food, to enforce sanitary methods, etc., would the nations not gain in individual contentment, in efficiency and lengthened lives for production far more than it could possibly cost?

The author pays his tribute meritedly to the redeeming features of the war in its medical triumphs—typhoid almost wiped out, typhus, dysentery, tetanus under known means of control, and sees promise that drunkenness and syphilis may also be numbered among the human enemies the ultimate doom of which the war has sealed.

"The soldier who dies of typhus or typhoid . . . has incurred not the slightest element of blame or reproach; on the contrary he has bravely risked and lost his life facing the risks . . . of war and his memory is revered as that of a hero and a true patriot. But the soldier who comes home from the war with a habit of alcoholic excess fixed upon him, or with the infection of one of the venereal diseases which he proceeds to spread through the community and to pass on to his helpless children, is a living shame and a perpetual menace and burden to his family, his friends and the country. . . . The world has

never seen an army in the field so sober and so free from disorder and crime. . . . Instead of the world having become more drunken in time of war, it has become distinctly and strikingly more sober."

LA BODEGA (The Fruit of the Vine). By Vicente Blasco Ibanez. New York. E. P. Dutton Company. \$1.90 net; and NONO (Love and the Soil), By Gaston Roupnel. New York. E. P. Dutton Company. \$1.90 net.

The glamor of wine and of the vineyard disappears yet is understandable in these two novels by authors in wine countries. Many people still believe that free access to wine will prevent drunkenness. These novels should forever dispel that belief, so far as they truly picture the conditions in the very sections where wine is produced, and where if anywhere there should be freedom from drunkenness if wine would prevent it.

The author of "La Bodega," well known now to American readers from his "Four Horsemen of the Apocalypse," and other translated novels, has drawn a vivid picture in this story of the wine-growers and wine conditions in the center of sherry production in Spain.

The glamor of wine is not here, but the ugliness of what it leads men into. The tragedy of the story turns on the outcome of the wine feast where "the day laborers forgot sleep to drink the lordly wine so prodigally provided." Men and women alike go down to drunkenness and abandonment under its influence. It is a sordid tale, too, of industrial conditions: "The golden beverage, the alcoholic demon that spreads its amber wings over that debased flock, fettering its will and instilling it with slavery to crime, madness and cowardice. Digging the soil, sweating over its furrows, leaving in its bowels the best of their existence, they produced this golden liquid; and the powerful rich use it to intoxicate them, to hold them in the enchantment of an illusory joy. . . . There were meagre sallow bodies tanned by the sun with wrinkled skin. Between this and their skeleton their poor scant food had not succeeded in forming the slightest cushioning. . . . The women looked worse than the men."

When the revolutionist stirs an occasional revolt, the masters open their wine cellars, the workers forget their misery as they drink, all lulled again and conquered into submission by the wine. It is not a beautiful story. Frankly, it is a terrible book. But it is a gripping one in its painting of a little known station of life in Spain and of the general blight of wine.

The other tale, "Nono," carries one into the wine-growing district of Burgundy. Like "La Bodega," it is not always pleasant reading, yet it should be read by adults. Rightly described as "a simple peasant love story broadening out into a drama of human sorrow and redemption with shafts of countryside wit and wisdom," drink makes hard lots harder, coarsens and spoils lives, precipitates tragedy in two generations. Little by little wine overcomes its victim as the years go by. In young manhood, "as for me," said Nono, "when I earn three francs fifty for my day and two bottles of wine I am quite happy." Later when his home was broken up, Nono still remained a gay and loving father to his daughter, but he continued none the less to get drunk. "Oh, that don't matter: I drink

only grape brandy and good wine; no more absinth." Several years more pass; wine growers are sitting together on a rainy afternoon: "What are we going to have now?" "Well, as Nono says, a good absinth with a golden edge." "Nono is a good sot now." "There ain't a worse one; he's never sober." . . .

"The door opened; Nono entered slowly. . . . 'At once, quickly, a little absinth. Make it a good roguish absinth. . . . White wine don't go well at all. . . . It's the rottenest knave that ever came out of a flask. . . . It is a booted gendarme, spurred to the eyebrows who swoops upon you, his saber between his teeth down the hill. . . . Confounded bigoted inn-keeper, I'm done for! . . . Hurry there bring me an absinth. . . . No alcohol lemonade but real absinth which smells of the France—Comtois."

THE SOBER WORLD. By Randolph Wellford Smith. Boston. Marshall Jones Company.

It is a pity that with thrilling materials which carefully used could have made a genuine contribution to popular literature of the alcohol question, this volume has apparently been too hastily compiled to be of genuine service. The investigations of the relations of the United States liquor interests to politics, to the press, and to pro-Germanism contain abundant data for a reliable volume of compelling interest, but some other author will still have to deal with these and other facts, keeping surmise and fact distinct from one another. In its general *theme*—the subtle, erroneous and far-reaching influence of the liquor interests, the author is probably not far out of the way. The official reports still remain the best story of the actual facts in the case.

PAMPHLETS AND REPORTS

BREWERY AND LIQUOR INTERESTS AND GERMAN PROPAGANDA INVESTIGATED. By WAYNE B. WHEELER, LL.D. Westerville, Ohio: American Issue Publishing Company.

THIS thirty-page summary of the investigation conducted by a United States Senate Committee ought to be read by everyone who is interested in good citizenship, clean politics, a truthful press and uncorrupted patriotism. It shows by references to the evidence taken by the Senate Committee that the brewing interests sought every possible item of information about men in political life that would afford an opportunity to influence them. The boycott was tried on business men; to get campaign funds assessments were levied on persons with whom the brewers did business; liquor interests were organized under misleading names as "Civic Liberty Leagues," "Manufacturers and Business Men's Associations," etc.; candidates for office were pledged against temperance legislation and law enforcement; articles were put into the public press seemingly as though written by independent writers. In a single year these liquor interests claim to have distributed 431,000,000 pieces of literature favorable to their trade. Newspapers were bought, or assistance was given to purchase them. Doctors and ministers of religion were used. The foreign language press was used for publication of "personal liberty" articles. Efforts were made to control labor organizations having any direct or indirect connection with or relation to the liquor industry.

These proven facts constitute an important part of the reason why the campaign for prohibition includes beer as well as spirits.

PROHIBITING INTOXICATING BEVERAGES, Parts 1, 2 and 3. Reports of hearings before the sub-committee of the Committee on the Judiciary, United States Senate, 66th Congress, 1st Session, on the bill to prohibit the liquor traffic and to provide for the enforcement of such prohibition and the Prohibition Act.

ENFORCEMENT OF PROHIBITION. Hearing before the Committee on the Judiciary, House of Representatives, 66th Congress, 1st Session. Serial 1. Washington, D. C.: Government Publishing Office.

THESE verbatim reports of the Congressional hearings on bills for the enforcement of national prohibition contain much information of value to the student of the alcohol question. Some of the topics discussed are these: (1) *Beer*, is it intoxicating, evidence cited both for and against; (2) the development by experience of legislation against beer; (3) evidence of opposition to and approbation of Prohibition on the part of labor interests; (4) legal and medical definitions of intoxicating liquors; (5) the relation of prohibition to patent medicines, pharmaceutical preparations, flavoring extracts; (6) root beer, ciders, near-beers; (7) other uses for grapes than in wine-making; (8) the reasons for various details of the enforcement bills; (9) discussion of the "concurrent powers" of Federal and State governments.

Among the statements of special importance at the present time bearing upon the question of beer as an intoxicating drink are the following taken from affidavits of the persons named:

DR. WILEY'S TESTIMONY ON BEER

Dr. Harvey W. Wiley, chief chemist of the United States Department of Agriculture 1883-1912, president of the United States Pharmacopoeial Convention since 1910:

"Whisky and brandy were excluded from the Ninth Decennial Pharmacopoeia because they did not appear to have sufficient therapeutic value to warrant their inclusion as valuable remedies. . . .

"Alcohol is admitted by all experts to be a toxic substance without respect to its quantity.

A little of it produces a small degree of intoxication, a lot of it a very advanced degree of intoxication, and a certain quantity of it produces death. . . . It is well known that it is impossible to standardize a toxic substance even as to its lethal dose for the very obvious reason that different people vary greatly in their sensitiveness to toxic substances. The 'average healthy adult' is an assumed individual who does not have any real existence but is made up of as many people below the average as there are above the average. It follows, therefore, that one-half the world are more sensitive to alcoholic intoxication than the average healthy adult. It is a well-known principle in science as well as in jurisprudence that what protects the average healthy adult does not apply in its protective qualities to the individual below the average. If 0.15 per cent. of alcohol in the blood intoxicates the average healthy adult, one-half that amount or one-quarter that amount may easily intoxicate a more sensitive individual. [See page 92.]

"The Supreme Court of the United States has constructed the food law in a manner to protect the most sensitive. In its opinion in the bleached flour case (U. S. v. 625 sacks of Bleached Flour) it says:

"It is not required that the article of food containing added poisonous or other added deleterious ingredients affect the public health, and it is not incumbent upon the government, in order to make out a case, to establish that fact. The act has placed upon the government the burden of establishing in order to secure a verdict of condemnation under this statute, that the added poisonous or deleterious substances must be such as may render such articles injurious to health. The word "may" is here used in the ordinary and usual signification, there being nothing to show the intention of Congress to affix to it any other meaning. It is, says Webster, an auxiliary verb, qualifying the meaning of another verb by expressing ability . . . contingency or liability, or possibility, or probability. In thus describing the offense, Congress doubtless took into consideration that flour may be used in many ways—in bread, cake, gravy, broth, etc. It may be consumed when prepared as a food, by the strong and the weak, the old and the young, the well and the sick, and it is intended that if any flour because of added poisonous or other deleterious ingredient, may possibly injure the health of any of these it shall come within the ban of the statute. If it can not by any possibility, where the facts are reasonably considered, injure the health of any consumer, such flour, though having a small addition of poisonous or deleterious ingredients, may not be considered under the act. . . ."

"I have frequently been present on occasions when the drinking of German beer in Germany was indulged in. It is well known that German beer contains much less alcohol than the ordinary American beer. The alcoholic content of German beer is not so very different from that of American beer containing 3.3 per cent. of alcohol by volume. I have in my experience seen scores of students visibly intoxicated by drinking German beer over a period from 6 to 12 hours. The fact that many other students, drinking the same amount of beer for the same period, were not visibly intoxicated does not lessen the value of the observation that some were.

"As to the capacity of the human stomach, it is well known that it is always practically full. As the contents of the stomach disappear its walls contract. As the new matter is ingested the walls expand. There is generally room for one more stein. It is not the last drink that intoxicates in the usual meaning of the word, but also the first and intermediate drinks. I, therefore, am of the opinion that it is easily possible for the human stomach to hold enough 3.3 per cent. beer by volume to produce intoxication in many cases. . . . I am strongly of the opinion that a beverage containing dilute alcohol, such as beer with 3.3 per cent of alcohol, even if in moderate quantities it fails to produce intoxication in the average healthy adult, may and probably will produce serious intoxication in the man below the average."

A MATTER OF COMMON SENSE

Dr. Arthur Dean Bevan, president of the American Medical Association, upon being duly sworn makes the following statement:

"The question as to whether beer containing 2¾ per cent. alcohol is intoxicating or not

is not a matter of scientific medical opinion, but a matter of common knowledge and common sense. It is a matter of common knowledge that beer which has been heretofore sold in the United States, containing from $3\frac{1}{2}$ to $4\frac{1}{2}$ per cent. alcohol, is definitely intoxicating and that an individual can get drunk on a limited number of bottles of such beer. If, for example, the ordinary individual became more or less intoxicated on half a dozen bottles of beer which contained from $3\frac{1}{2}$ to $4\frac{1}{2}$ per cent. alcohol, it is a perfectly plain common-sense proposition that the same individual would become just as intoxicated by drinking instead of six say eight bottles of beer containing $2\frac{3}{4}$ per cent. alcohol. There can be absolutely no doubt but that beer containing $2\frac{3}{4}$ per cent. alcohol is an intoxicating beverage in that an individual can become drunk on the amount that is frequently consumed."

DISTINCT NERVOUS EFFECTS FROM BEER

Dr. Reid Hunt, professor of pharmacology in Harvard University, chief of the division of Pharmacology of the Hygiene Laboratory of the United States Public Health Service 1904-1913, author of "Studies in Experimental Alcoholism" (1907) reviews in his affidavit the Dodge-Benedict experiments at the Carnegie Nutrition Laboratory which used doses of alcohol nearly equivalent to those in 1 to $1\frac{1}{2}$ litres of beer containing a little less than 2.75 per cent. of alcohol by weight. Dr. Hunt says:

"If by the term 'intoxicating liquor' is meant a liquor which contains sufficient alcohol to cause, when the liquor is taken in amounts which are not usually taken by men, distinct effects upon the nervous system, the effects being characteristic of and due to the contained alcohol, I am of the opinion that beer containing 2.74 per cent. by weight of alcohol should be classed as an intoxicating beverage."

AUSTRALIAN COURT EVIDENCE ON BEER

A practical and personal observation as to the intoxicating effects of beer appears in the affidavit of R. S. Hammond of Sidney, Australia, recently a visitor to the United States. He represents officially the attorney general of the Commonwealth of Australia in recommending to the court the disposition of intoxicated persons. His affidavit says:

"Within the last six years in this capacity I have dealt with 43,421 intoxicated persons; the effect of beer and other liquors varies in individual cases according to the habits, health and physical condition of the drinker. Some persons become intoxicated on beer containing a small per cent. of alcohol, while others will show no visible signs of intoxication in using the same kind of liquor in the same amount. Liquors containing $1\frac{1}{2}$ per cent. of alcohol or more are considered intoxicating in Australia under the law, while those below that standard are classed as non-intoxicating liquors. At least one-half of those arrested for intoxication were intoxicated on beer. Basing my opinion upon my official experience with these 43,421 intoxicated persons, I am convinced that many persons may become intoxicated on beer containing not more than $1\frac{1}{2}$ per cent. of alcohol; that still others will become intoxicated on even a smaller percentage of alcohol in beer."

BEER A PRACTICAL HANDICAP IN PROHIBITION ENFORCEMENT

The difficulties of enforcing a Prohibition law when beer of any alcoholic strength is allowed appears in a letter (June 19, 1919) by Hon. Charles M. Pollock, formerly one of the judges of the Supreme Court of the state of North Dakota. He reviews the experience of that state, whose first Constitution carried a prohibitory law. Courts were at once called on to define "intoxicating liquor." The same variations appeared as now, with the result that in 1895 a proviso was inserted declaring that liquors containing less than 2 per cent by volume should not be deemed intoxicating.

"Within three months after the passage of the act, we found ourselves in a horrible condition. The brewers of malt liquors made a beer containing 1.90 per cent of alcohol by volume and placed therein as a preservative such poisons as *coccus indicus*, copperas, opium, extract of logwood, and many other ingredients calculated not only to make the drinker drunk, but crazy."

The next legislature put an end to these poisons. "Several times amendments have been made trying to fix a reasonable limit to the amount of alcohol which could be used in beer without the same being intoxicating. . . .

"Notwithstanding all these attempts to permit a 'trace' of alcohol to be permitted in the beverage known by the name beer or resembling beer," says former Judge Pollock, "we have had constant trouble. We have about decided that the only way in which evasions of the law can be prevented is to prohibit the use of any alcohol whatsoever. A large number of the brewers seem to be without a conscience in the matter, as is evidenced by foisting upon our people poisonous preservatives, when the temperance folk were trying to be as moderate as possible in their demands for the extinction of the beverage use of alcoholic stimulants. If the foregoing counts for anything it means that there is no use trying to compromise on 2½ per cent. or any other percentage. I hope future trouble will be avoided by adopting adequate remedies now."

MASSACHUSETTS' EXPERIENCE WITH EXEMPTING BEER FROM PROHIBITION. By CORA FRANCES STODDARD. Westerville, Ohio: American Issue Publishing Company.

THE experience of North Dakota in trying to allow beer of any alcoholic strength to be sold under a Prohibition law as described by Judge Pollock in the preceding review was forecast by a Massachusetts experience of nearly fifty years ago. A report of Canadian Commissioners who in 1874 studied Massachusetts records, interviewed judges, police and prison officials, and a book written by a judicial contemporary, Judge Robert Pitman, are the sources of the brief story of Massachusetts' unsuccessful attempt to allow beer to be sold while prohibiting spirits. Intoxication and its results markedly increased during the period of beer-selling as compared with the previous prohibition period, partly because of the beer, partly because other liquors were sold under the cloak of beer. The results were so conspicuously disastrous that in 1873 the laws permitting the sale of beer were repealed in accordance with a recommendation of the governor of the state, who said in his inaugural address:

"If we are to accept the evidence of those who have had the most painful experience of the miseries produced by these places [beer shops], they are among the greatest obstacles to the social and moral progress of the community."

EDUCATION ON WHEELS. By CORA FRANCES STODDARD. Westerville, Ohio: American Issue Publishing Company. 8 pp. 10 cents.

SUGGESTIONS for movable out-of-door temperance educational work with an automobile, truck or wagon are combined here with the story of an actual experience by a well-known minister and writer. The program calls for teaching rather than oratory, and for graphic illustrations of the truth to be presented.

SCIENTIFIC TEMPERANCE. By DR. C. W. SALEEBY. Reprinted from the *Contemporary Review*. London, December, 1918.

THE author starts from the standpoint that measures for dealing with alcoholic beverages must be based upon knowledge of its toxological facts since "alcohol produces toxic effects which we call alcoholism and which we desire to prevent." Drunkenness or acute alcoholism or convictions for drunkenness he does not regard as a just or trustworthy criterion of alcoholism. To it he would properly add the records of delirium tremens, of alcoholic neuritis, of infants suffocated in bed by mothers, of stillbirths, of attempted suicides, of the incidence of cirrhosis of the liver. "A substance which, under certain conditions, is obviously toxic, and which, under other conditions is less obviously but no less certainly toxic is being consumed by the people, and the problem is to reduce the toxic effects to the minimum."

For a program, Dr. Saleeby uses as a starting point the nine plans of the Temperance Council of the Christian Churches. Six of these he would retain: Sunday closing, restriction of hours for the sale of drink on week days, reduction of the number of licensed premises, control of clubs, prohibition for young people, provision of alternatives for the

liquor tavern. For local option and the abolition of grocers' licenses he would substitute dilution of alcoholic beverages though he "is not sanguine enough to suppose that really adequate dilution is possible in the existing state of public opinion." He is careful to state that personally no possible dilution of spirits would seem to him a satisfactory arrangement. His recommendation is on the principle, "Alcohol is a poison; you will be punished if you do not add water to your spirits, thus poisoning your customer less than heretofore."

Other plans in Dr. Saleeby's scheme are adequate and graduated taxation, establishment of a central authority to supervise and coördinate the work of local licensing authorities, no treating.

By cutting out local option, these plans seem to omit the only possible opportunity of breaking the organized power of the liquor interests and abolishing the habit of using alcoholic beverages which in time is the only solution of the alcoholic question.

THE SCIENTIFIC AUTHORITY FOR TOTAL ABSTINENCE. By COURTENAY C. WEEKS, M.R.C.S., L.R.C.P., CAPT. R.A.M.A. London: Royal Army Temperance Association. 1d. each or 7s. 6d. per 100 copies.

This is a series of exceedingly well-written instructive booklets under the titles "Alcohol and Cell Life," "Digestion, Its Purpose and Process," "Alcohol and the Process of Digestion," "Circulation of the Blood," "The Action of Alcohol on Blood and Blood Vessels," "How Alcohol Affects the Defensive Powers of the Body."

The articles written by the General Secretary of the Royal Army Temperance Association are avowedly for educational purposes. They are illustrated and the text draws upon recent authorities for evidence.

ANTI-SALOON LEAGUE YEAR BOOK 1919. By ERNEST H. CHERRINGTON. Westerville, Ohio: American Issue Publishing Company. Paper, 50 cents; cloth, 75 cents.

THIS year book differs in at least one respect from any other that preceded it in that it is able to record the final acts of incorporation the National Prohibition Amendment into the Constitution of the United States. It covers a year of swift and strenuous activity toward this long-sought end. But the year book opens with the text of the amendment, the official declaration of its adoption by the Acting Secretary of State, the roll of the 48 ratifying state with their respective votes, the history of the final movement beginning in 1913. Other features of interest for the year were the passage of the War Prohibition bill and the adoption by the Anti-Saloon League of a world program. The year book contains a chronology of the anti-liquor movement in America beginning with 1642 which indicates that it is not a sudden or hasty action that has finally culminated in entire prohibition. There is the usual account of state activities, a hundred-page summary of conditions throughout the world. The scientific facts this year deal largely with beer, which has been made the storm center of controversy in legislation and enforcement.

ALBUM OF TEMPERANCE MISSION AND EDUCATIONAL WORK carried on by the INTERNATIONAL ORDER OF GOOD TEMPLARS. Birmingham, England: Grand Lodge of England and the United Services.

THE international movement against alcohol owes more to Good Templary than is often realized. It originated in New York state, and in it were trained many of the American men and women who have actively served the temperance cause in their organizations. Seventeen years after it began, it was carried in 1868 to England whence it has spread all over the world, functioning in about 14,000 branches. The general plan of its work and growth is succinctly stated in this "little album." It is "mainly a voluntary temperance missionary organization in which each member is pledged to personal abstinence from intoxicants and to the advancement of sobriety by moral and legislative means." In Great Britain and some other countries it has insurance sections. It has a Juvenile department and an intermediate section for youth, study courses, army and navy work. The British Good Templars aided in establishing the London Temperance Hospital and a Good Templar and Temperance Orphanage. The latter was for orphans having one or both parents abstainers.

It was established because at the time in other orphanages children were sometimes treated to alcoholic liquors and no temperance teaching or example was given.

The order has spread mainly by the personal work of individuals. Joseph Malins carried it from the United States to England. Thirty-two years later he established a lodge in Jerusalem. Charlotte Gray, an English teacher, was mainly responsible for planting it in Belgium, Holland, Switzerland and other Continental countries. A Norwegian captain took it from England to Norway; a servant girl, to Malta; Highland soldiers, to Gibraltar; an Army scripture reader, to India; a seageant-major, to Ceylon; a sailor, to Japan; a Congregational minister, to Singapore and China; a primitive Methodist minister, to New Zealand; emigrants, to South Africa and West Australia; soldiers and missionaries, to West Africa; naval men and others, to South America and the West Indies.

ALMANACH DE L'ETOILE BLEUE 1919. Paris: Ligue Nationale contre l'Alcoolisme. 5 cents.

To all the customary information of an almanac, this manual of the French League against alcohol conveys to its readers information about its organized activities, quotations adverse to drink from well-known men, stories, poems, posters. Jules Cambon, last French ambassador to Germany, is quoted as saying, "Alcohol is an enemy more difficult to conquer, and perhaps more terrible than all Germany."

The Latest Word on Russia

RUSSIAN PROHIBITION

By ERNEST GORDON

A new volume, containing the results of a searching investigation into the results of the Prohibition policy in Russia. A wonderfully interesting array of facts and figures bearing on all phases of the life of the Russian people.

What They Say of It

"The new superdreadnaught in the war on the distillery and brewery—impenetrable and irresistible. It gives no argument—only solid facts, that carry round the globe and never miss the mark. So hopeless poverty shows the way to wealth, and drunken peasants lead the scholars of the world to the fixed fact that 'Godliness is profitable' to common people and to kings."—John G. Woolley.

"The book is tremendously worth while and we are planning to give it special attention in the college work during the next few months."—Harry S. Warner, General Secretary Inter-collegiate Prohibition Association.

"One of the strongest arguments in favor of Prohibition that I have ever had the pleasure of reading, and should be of great value to the cause of temperance."—Governor Arthur Capper, of Kansas.

"Since the sale of alcoholic beverages remains a live question in America special interest attaches to Ernest Gordon's pamphlet on Russian Prohibition. . . . Its statements as to the decrease in Russian crime and vagrancy seem incontrovertible, supported as they are by statistics of evident credibility. The conclusion drawn from reading the brochure is that Russia has solved the drink problem. She has done more. She has discovered to the world how simple the problem really is—the best education for Prohibition was Prohibition."—Chicago Daily News.

"It ought to go by the ten thousand into every state voting on state-wide Prohibition this year."—Louis Albert Banks.

"I consider it a very good book."—Prof. Irving Fisher, of Yale University.

The book contains 80 pages; bound in dark and red cardboard.

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CONTENTS: AUTUMN, 1919

THE EFFECT OF ALCOHOL UPON ABILITY TO DISTINGUISH COLORS:

EXPERIMENTS OF *Hugo Schulz* 123

WHAT DO THE CHILDREN GAIN BY PROHIBITION? *Cora F. Stoddard* 127

A CIVIL WAR SOLDIER'S EXPERIENCE. *Duncan Milner* 139

WHAT IS GOING ON IN THE WORLD

Africa 154; *Argentina* 155; *Australia* 153; *Austria* 143; *Belgium* 145; *British Empire* 151; *China* 151; *Denmark* 142; *Finland* 141; *France* 147; *Germany* 143; *Hungary* 143; *Iceland* 142; *Indo-China* 151; *Ireland* 153; *Italy* 144; *Martinique* 151; *Mexico* 155; *Morocco* 151; *New Zealand* 154; *Norway* 142; *Poland* 142; *Roumania* 143; *Russia* 141; *Scotland* 153; *Sweden* 141.

WORLD LEAGUE AGAINST ALCOHOLISM 155

BOOK REVIEWS 157

NOTE AND COMMENT 163

PAMPHLETS AND REPORTS 169



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THE EFFECT OF ALCOHOL UPON ABILITY TO DISTINGUISH COLORS

REFERENCE has already been made in the JOURNAL to experiments by Dr. Hugo Schulz, of the University of Griefswald, upon the influence of alcohol on clearness of vision. A more complete account of these experiments is now available. The results, as summarized by the investigator himself, were as follows:

1. The absorption of alcoholic liquors containing 10 ccm. of alcohol (about one-third of an ounce or two-thirds of a tablespoonful) provoked in nearly all cases marked diminution in the ability to distinguish shades of red and green.

2. There were exceptions only in rare cases after taking wine, brandy, or champagne.

3. Diminution of intensity of vision was more marked for red than for green.

4. The greatest diminution in clearness of vision occurred after taking beer.

There were three series of experiments. Different combinations of alcohol were used, diluted alcohol, light beer, Rhine wine, champagne, and brandy, but always containing approximately 10 ccm. (about two-thirds of a tablespoonful) of alcohol.

The Rhine wine and champagne taken amounted to about one and one-half wine glassfuls; the beer, to a half-pint glass; the spirits, to about one and one-third tablespoonfuls.

Ueber den Einfluss des Alkohols auf das Farbensehen. *Pfluger's Archiv. fur die gesamte Physiologie*, Vol. 164, Bonn, 1916.

Ueber den Einfluss des Alkohols und Kaffein enthaltender Genussmittel auf das Rot-und Grünschen. Vol. 166.

Vermag ein geringes Quantum Alkohol, in Gestalt von Bier aufgenommen, die Wahrnehmung eines kurzfristigen Signals zu beeinflussen. *Idem*, Vol. 168, 1917.

TESTS WITH DILUTED ALCOHOL

The first series of tests used diluted alcohol in the proportion of one part alcohol and ten parts water, giving a solution about the alcoholic strength of wine. Most of the seven persons experimented with were so-called moderate drinkers, but two were abstainers. The experiment observed the effect of alcohol upon clearness of vision for red and green, and also for black and white.

In this series with quantities of alcohol no larger than those in 6.6 tablespoonfuls of wine clearness of vision was better, that is, shades of the same color were better distinguished. But quantities of alcohol greater than those in 6.6 tablespoonfuls of wine were followed by impaired clearness. The change came with some subjects with smaller quantities; other subjects did not show impairment until after larger amounts. The figures given represent the average.

TESTS WITH ACTUAL ACOHOLIC BEVERAGES

The first set of experiments, however, in using merely diluted alcohol did not represent actually the experience of the drinker who takes his alcohol as wine, beer, spirits, etc. Hence a second series of tests was carried on in which not only were the common alcoholic beverages used, but there were control experiments without alcohol and others with coffee. The same amount of alcohol was given as in the first series, but in the form of Rhine wine, champagne, beer and brandy in the quantities indicated at the beginning of this article. The results were the four summarized above. They showed impairment of vision in the distinguishing of colors, an impairment worse with red than with green, and worse as regards both colors after taking beer, possibly, it has been suggested, because of the additional influence of the hops in the beer.

When coffee was taken, clearness of vision was increased. All these tests indicated that even moderate quantities of alcohol taken by persons who had to distinguish between colors might impair vision even to the extent of endangering life where the latter depended on the drinker.

BEER'S INJURY TO VISION

The third series of tests was extremely interesting and practical, being directed at ascertaining whether a small quantity of beer could impair sight in discerning signals appearing for only an instant.

A 10 candle-power electric lamp was installed in a wooden box, the front of which was not closed but was surrounded by a framework containing a red glass. Before the glass was a shutter which, opening for one one-hundredth of a second, allowed the red glass to show over a small space (0.5 mm. to 4 mm.) not exceeding 0.15 inches.

The apparatus was installed in a dark room. The location of the subject of the experiment was slightly shaded so as to diminish the direct daylight. The red light was made to appear gradually, increasing the diameter of the shutter until the subject saw distinctly; suddenly, then, the full size

of the opening, 0.15 inches. Generally the subject at first saw nothing; then, as the size of the opening increased, he perceived successively a white or a yellow band, then something rose-colored or a red point, and finally vision was distinct. When there had been determined the size of opening at which the subject exactly distinguished the color, he was given half a pint of beer and then underwent a series of tests, one test every two minutes.

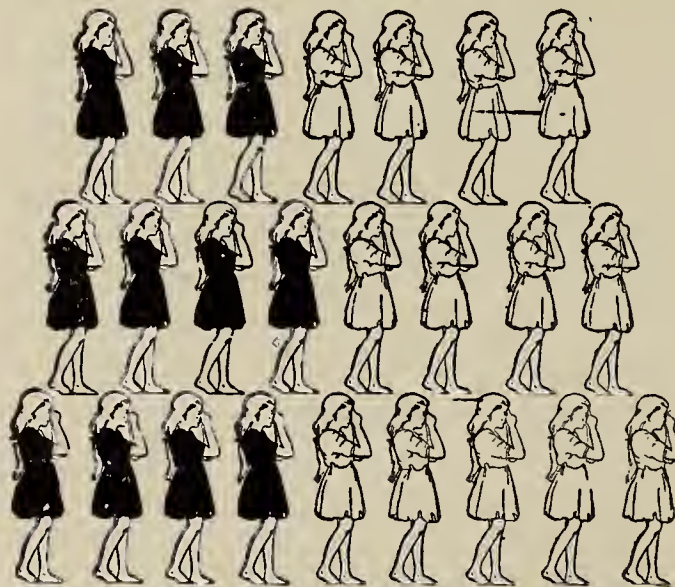
One hundred persons of all ages, professions, and of both sexes were tested. Fifty-six saw better or as well after having taken the half-pint of beer; forty-four, on the contrary, saw less well.

In some cases the poorer vision was possibly the beginning of fatigue; this point seems not to have been tested. Eliminating all in whom the diminution was slight, Schulz still had eighteen of the one hundred (18 per cent.) with whom the difference was marked. He repeated the experiment with thirteen of them with the same results.

His conclusion was that, for a good number of people, the absorption of as little as half a pint of beer (one small glass) brought about diminution in clearness of vision. This might easily become serious with engineers, pilots, automobilists, especially in view of the fact that they must often catch their signals through smoke, fog, and other conditions making visibility low. Railroads have fairly thoroughly acted on this principle in the United States; some automobilists and others engaged in occupations demanding quick recognition of colors have still to learn it. Eighteen chances in a hundred of impairing vision by a small glass of beer are too many to risk.

DRINK BURDENS CHILDHOOD

Children In Black Abused or Neglected because
of Intemperance of Parents
or Guardians 45.8 per cent



**Of Every Dollar Given for Relief of Neglected or
Destitute Children \$0.46 Goes to Care
for the Results of Drink**

Statistics of 5,184 Children: Committee of Fifty, 1899.

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BOSTON, MASS.

WHAT DO THE CHILDREN GAIN FROM PROHIBITION?

What does abolishing the sale of alcoholic drinks do for the children? is a question that recently appeared in the editor's mail. In a few months we should be able to obtain much valuable information on this question, as a result of nation-wide prohibition. Meanwhile, the JOURNAL presents here a compilation of some of the evidence that has already been printed in various publications, covering a period of some twelve years, and derived from many states. Even local prohibition is shown to have a conspicuous effect on child welfare. In this connection should be read the review (page 171) of the infant mortality story from dry cities. How the results of state-wide prohibition and how national prohibition are certain to build up our most precious national asset—the children of America—begins to appear in the following pages. The publications from which the information is gathered are listed at the end of the article and referred to in the text by number.

MATERIAL IMPROVEMENT

Butte, Montana. The manager of the Butte Electric Railway Company commented on the effect of a liquorless state as noted in the appearance of children who visited Columbia Gardens (Butte's pleasure resort) on Arbor day. While formerly many of them had looked half starved, poorly clothed, and unhealthy, he declared that this year he had "never seen such well dressed, healthy, well-fed youngsters."—Julia C. Seward. (1. June 12, 1919.)

Savannah, Ga. The families of the laborers and mechanics are better fed and better clothed and this is true of many white families as well as of the negroes.—Hon. Wallace J. Pierpont, Mayor of Savannah. (1. July 25, 1918.)

Denver, Colorado. After our dry law had been in force six months, Miss Gertrude Vaile, executive secretary of the Denver city Bureau of Charity and Correction, issued a statement which, among other things, declared: "The number of families asking relief from the city office was about 100 a month less than for the corresponding month last year. Men are using their wages more for their families. We can think of only two cases since the first of last January in which a woman has complained that her husband did not bring her home his wages. Last year that was a frequent and bitter complaint."

During the first six months of 1915 there were 19 arrests for cruelty to children; during the first six months of 1916 there were but 4 arrests; a decrease of 15.

The proprietor of probably the largest laundry in Denver told me that in one month after the state went dry his business gained 401 new customers. This means that in this one instance alone 400 women were freed from the slavish work of the wash tub. It means that the stigma which is attached to that kind of employment has been taken away from the mothers of several hundred homes and these mothers now have time to pay more attention to their children. . . . When the southern part of Colorado was made dry during the coal strike of 1913, employers noticed as they walked up and down the streets that pretty, warm clothing covered little bodies that had long been dressed in rags.—Gov. George A. Carlson. (1. December 21, 1916).

The practical benefits which are most conspicuous are the relief of suffering

among women and children, the decrease in demand on charity organizations. (4. Gov. Gunter quoted.)

Des Moines, Iowa. The Des Moines Associated Charities says: "Three years ago 26 per cent of all the families aided were in a condition of poverty through the drunkenness of the father or supporting members of the household. Last year that figure had dwindled to 10 per cent." (1. Feb. 7, 1918.)

Washington, D. C. One of the officers of the Associated Charities reported that in one district during the saloon regime they had 12 non-support cases a week; under the dry regime, but one. In spite of the unusual war conditions, those who visit the poor testify that the children are better clothed and better fed than formerly. (1. Feb. 21, 1918.)

Sioux Falls, S. D. A big grocer put it in this way: "They buy more groceries now than they used to, they pay more cash, they buy better goods, and now father brings the kids along and buys them candy, too. We never saw that in the old days."—(*Sioux Falls, Angus-Leader* quoted. 1. Feb. 28, 1918.)

South Dakota. For the first time during 25 years of our Children's Home Society not a single child has been admitted to its custody on account of booze playing a prominent part in establishing its dependency.—Supt. Stuckeman, of South Dakota State Children's Home in his report after Prohibition had been in force 12 months. (1. Aug. 22, 1918.)

Detroit, Mich. The Children's Aid Society found a marked decrease in the number of children accepted because of drunkenness or neglect of parents, as an immediate result of the law. From May 1 to July 15, 1917, during the license period this number was 44. From May 1 to July 15, 1918, after prohibition became effective, the number was only 15. This early experience was typical of what has followed. The St. Vincent de Paul Society found an immediate decrease in non-support among families under its care. The Visiting Housekeepers' Association discovered that children suffering from malnutrition in families where the father drank, began to be well-fed and better kept after the saloon disappeared.—Fred. R. Johnson, Associate Secretary, Detroit Community Union, in the *Survey*. (1. June 5, 1919.)

Omaha, Neb. From Omaha comes the report: Fewer divorces, better fed and better clothed families. Fewer bad mercantile debts and better savings accounts. From other cities come the same heartening stories. Particularly do the reports dwell on the falling off of arrests in family quarrels. Fewer drunken husbands mean fewer beaten wives and neglected children. Normal man, with liquor beast expelled from his nature is taking care of his family instead of abusing them.—(Memphis, Tenn., *Commercial Appeal*, in 1. Feb. 28, 1918.)

Mr. E. M. Reynolds of the Benson & Thorne Department Store told me that on the first Saturday after the dry law went into effect, there was an increase in the sales in the shoe department, chiefly children's shoes. On the second Saturday there was a much larger increase, showing that it is the women and children who benefit first from prohibition. (4.)

Toronto, Ontario. Families where the mother and father were both addicted

to drink were poorly clothed and improperly fed. Now it is exactly the reverse. More than that the children are now clean and neatly and comfortably dressed.—M. F. Irwin, the McCleary Manufacturing Co. (3. Nov. 2, 1917.)

I was instrumental in furnishing a crippled boy with two artificial arms. He remarked that for five years his father and mother had not had a meal on

the table — they had not eaten together, as one or both were drunk most of the time. He picked up his living from door to door during that entire period. When prohibition went into effect they bribed everyone possible to get a drink. Gradually the chances were less, with the result that beginning last February all three sat down to their regular meals for the first time in five years. It is, the boy said, the first time he ever saw this since he could re-



—From Exhibit of Scientific Temperance Federation

member or was able to look upon his parents and see the one or both not drunk.—Ralph Conceable, F. W. Woolworth Co., Ltd. (3. Nov. 2, 1917.)

It is the wives and the families of the drinker who have reaped the greatest benefits from the new law (went into effect September, 1916). It was a common occurrence for a woman to bring her family of little children to the city hall, tell the sympathetic sergeant that her husband had spent all his earnings on drink, that they had not had anything to eat for several days, and ask the city to take care of them. There has not been one such case since the new law came into force. (3. Dec. 21, 1917.)

Ottawa, Ontario. During 1918 there were nearly 500 less applications for relief than in the previous year, while, although there were 142 agreements in the office signed between husbands and wives over family disputes caused by liquor and other causes, in the last year there were only 2 and they had nothing to do with liquor. In 1916 the office had 106 dependent children on its rolls, 75 per cent. being victims of their parents' addiction to drink. In 1917 the number was 81; in 1918, 52. For the present year to date there were 53.—John Keane, City Relief Officer. (3. May 30, 1919.)

Kansas. It is evident that the women and children in this city are much better dressed than heretofore.—K. L. Browne, Cashier of a Kansas bank, quoted in an investigation made by *The Evening Express*, Los Angeles, Calif., Sept. 25, 1916.

Atlanta, Ga. Closing the saloons in our city has enabled the workman who

heretofore spent his money on Saturday night for whisky and beer to use it in providing for his family.—H. Y. McCord, of McCord-Stewart Co., Wholesale Grocers. (5. Oct. 7, 1916.)

Charlestown, W. Va. The children are happier, better dressed, better fed and happier than they were.—G. E. Bruce, Mayor. (5. Oct. 7, 1916.)

Tacoma, Wash. The prohibition law has been in effect three months. Hundreds of Tacoma homes are happy in the change. Shoe dealers say there is now an unprecedented sale of children's shoes. Merchants generally report increasing trade, especially in women's wear.—A. V. Fawcett. (1. April 27, 1916).

Seattle, Wash. The Dinham-Strehlau Shoe Company opened three new stores in the city within ten months after the dry law went into effect, all of them in locations formerly occupied wholly or in part by five liquor saloons. Mr. H. T. Dinham, president, writes: "There are *50 per cent more children's shoes* sold now than when the saloons were in full blast. People are also buying a better quality of shoes than formerly."

All large department stores report a big increase in business. The big increase in all the department stores was in *wearing apparel of women* and children.

Mr. M. F. Backus, president of the National Bank of Commerce had owned stock in a local brewery, owned several buildings rented to saloons, worked hard against prohibition. He said to me:

"As we see the happier women and children, brighter homes and improved moral conditions of the city we wonder that we were so blind as to let saloons continue so long."

Hiram C. Gill, Mayor: No new drunkards are being created and the rising generation will never know the curse of liquor. . . . Men now save their wages, their wives and families get them and thousands of hells have been turned into happy homes by the law. (4).

Portland, Oregon. W. M. Ladd, leading citizen and banker writes: "Pay checks are now coming into the banks with the endorsements of grocers and retailers instead of saloonkeepers. Men, women and *children* are happier and more prosperous. Shoe dealers report a big increase in sales. They agree that they are selling a greater proportion of children's now. The assertion that children are better shod is corroborated by the school authorities. (4).

Salem, Mass. The annual report of the Associated Charities contained in 1912 the following statement relative to result of three years of closed saloons: "No record would be complete without mention of the marked effect of three consecutive years of no-license. Not only do the figures of the causes of distress show a decided difference, but the actual work with the families gives even clearer evidence of the value of no-license. We still have drunkenness and it is still possible for men to buy liquor, but we do *not* have women coming in every week with weary tales of lost jobs, of hungry *children* and broken furniture, because 'he is drunk.' With each succeeding year of no-license the drunken husband with all his attendant miseries is less in evidence. He becomes a producer of energy instead of a consumer of whisky, and the money hitherto expended by a

charitable public on the bare support of his *children* can be put to other more constructive uses.”—*Plain Truth*, Dec. 17, 1912.

Lynn, Mass. A family of more than average ambition and resources. In the last year of license the father got to drinking hard. One comfort after another had to be given up, the children’s piano lessons stopped. The mother went out scrubbing. After the city voted “No” the family is back in comfortable circumstances.

In another family both parents drank heavily. We were often called to help



the children who suffered for the necessities of life. When the city went no, father and mother got away from drink, the children are well fed and clothed and we have not had a call to help them since.

Another father spent all his earnings for drink and pawned everything he could get hold of, including his little boy’s eye-glasses that we had helped get. Another time the baby’s little fur neck tippet. Under no-license the family has repaid all the loans we had made them, is now on a good self-respecting basis and a credit to the city.

These are but three cases out of hundreds.—From the files of the Lynn Associated Charities. (8. Dec., 1910.)

West Virginia. Men who formerly would come to the cities and spend a large proportion of their weekly wages for liquors, now carry home food and clothing for the wife and children. This feature alone, in my opinion, has indicated that prohibition has been a moral and intellectual help to the welfare of the working classes.

The prohibition law has been and will continue to be a wonderful help to this department in the strict enforcement of the child labor law. If this was all that prohibition did what a blessing it would be to the little ones who are to compose the future citizenship of the state and nation. “A sin against the child is a

sin against the republic." When a child is helped by the enactment of a moral law it is also helped intellectually.—Hon. J. H. Nightingale, Commissioner of Labor for the state of West Virginia. (5. Oct. 7, 1916.)

REFORMATORY

Monroe, Wash. The state board of control of the reformatory which is used exclusively for young and first offenders is satisfied with the effect prohibition has had on the rate of commitment to the reformatory during the six months it has been in force. Up to July 1 of this year there have been only 99 commitments, while for the same period of 1915 there were 191 who became inmates of the institution. (1. Aug. 3, 1916).

At the end of the first "dry" year the number in the reformatory was 90 less than the preceding "wet" year. A large addition to the reformatory was planned, but the legislature killed it when the prohibition law was passed because there would be no need for it. (4).

Kansas City, Kansas, did not close its saloons till 1906. "Prohibition," said Attorney-General Trickett who finally closed them, "is *better for business and better for boys.*" As proof that it was better for boys, Mr. Trickett told us that Kansas City (Wyandotte county) in the ten years before the saloons closed had sent an average of twenty boys a year to the state reformatory. In the year following the closing of the saloons it sent only two boys. (7).

Idaho. Commitments to the Boise Children's Home have decreased materially, with not one commitment for the first six months of 1916 as compared with 14 for the year 1915. Last year there were also 27 temporary commitments; so far this year but one. (1. Aug. 24, 1916.)

West Virginia. Our reform schools are running down hill under the dry regime. There is a big increase in enrollment in the public schools, however.—M. P. Shawkey, *West Virginia Educator*. (1. Nov. 9, 1916.)

Savannah, Ga. Liquor interests advertise that Savannah has been greatly injured by the enforcement of the laws prohibiting the sale of intoxicants. . . . If it injures a city to have its women and children walk its streets without seeing men partly or wholly under the influence of liquor then Savannah has been injured by such laws and their honest enforcement.—W. T. Pierpont, Mayor. (5. Oct. 7, 1916.)

Arizona. After the first seven months of 1914 there were 5 girls and 34 boys committed to the state industrial school at Fort Grant. In 1915, there were 4 girls and 28 boys. These first few months of 1915 represent the culmination of offenses committed in 1914; in fact the entire period of 1915 represents commitments for misguided young lives begun under liquor conditions. (6).

Seattle, Wash. Mayor C. Hiram Gill said: The State Reformatory for the younger criminals shows a great decrease in inmates. (4).

EDUCATION

The abolition of the saloon promotes education of children for several reasons. Some of these were forcefully stated by principals of schools in Lynn.

Mass., after the saloons were voted out. And this was only local prohibition. The city was still subject to liquor invasion from wet cities.

Lynn, Mass. F. L. Whipple, principal of the Tracy School, drew two contrasting pictures:

"Under license. Pupils absent from school to mind house or 'the baby' while mother worked to earn money for the home, father intoxicated. Some in school without breakfast, untidy and improperly clad; evidences of various kinds showing that some were left to their own care or care of other children.

"Things have changed. Attendance is better, scholarship is better, a better spirit in the school among the children, among the parents and in the neighborhood. No empty whisky bottles in the school yard [formerly one to a dozen daily], no drunks 'sleeping it off' in the grove across the street, no insolent parents abusing teachers, no evidence of the drink habit in any pronounced form. A better, cleaner, more respectful, more earnest lot of children cannot be found. Give us more no-license and we will give you better schools." (8. Dec., 1910.)

The report of the Lynn School Department in 1909 said: "Children have never looked so well, so clean, so healthy and well cared for as they do this year. (8. Dec., 1909.)

The Superintendent of Schools, Frank J. Peaslee pointed out the far-reaching effects of a better school attendance. "Prior to 1908 we had an attendance averaging about 92 per cent. Last year (school year, 1909-10) the average was 95 per cent., a rate well above the average for the state. In other words, there was an average of 375 more pupils in daily attendance last year than there would have been if our percentage of attendance had been the same as under license. 4

"The two chief causes of absence from school are sickness and lack of sufficient clothing. The sickness is largely due to neglect and want of proper food. Just in proportion as the curse of drink goes out of the home, these needed things come in and the children go to school.

"Perhaps the greatest possible blessing of all to the child comes in the lengthening of his school life. Under license about 70 per cent. of the children graduating from the grammar school went to the high school. Under no-license fully 87 per cent. are going to high school. The number of pupils in our high school has increased more in the last three years than it did in the ten preceding years. This means that many children who under license would have been obliged to go to work for the support of the family are now, under no-license, able to prepare themselves adequately to take up the work of life and compete successfully with those who have had such preparation. There is little hope of advancement for the boy who goes to work in shop or factory at the age of fourteen years, the youngest age at which he is free from compulsory school attendance. He is doomed to a life of drudgery with little pay and no prospects ahead. 4

(8. Dec., 1910.)

Statistics of school attendance in Lynn for a license and a no-license period

showed (8. Dec., 1912) the striking educational gains for children when the saloons were closed:

		INCREASE IN POPULATION OF SCHOOL AGE	INC. IN ATTEND- ANCE BELOW HIGH SCHOOL	INCREASE IN HIGH SCHOOL MEMBERSHIP	INCREASE IN NO. GRADUATING FROM HIGH SCHOOL
1902-1907	License	12 p. c.	5 p. c.	22 p. c.	5.5 p. c.
1907-1912	No-License	7 p. c.	15 p. c.	50 p. c.	43.0 p. c.

Statistics gathered from the Reports of the Massachusetts State Board of Education and published by the Quincy No-License League in 1906 showed the average percentage of children of school age (then 5-15 years) attending school in ten no-license cities:

10 No-License cities	88.6 per cent.
10 License cities	73.0 per cent.

This meant that 16 children out of every 100 in the license cities were deprived of a part of their education, presumably in most cases by leaving school to go to work.

The attendance records in the High Schools secured by correspondence from eight license and eight no-license cities showed that for every 50,000 population,

8 No-license cities	had 429 pupils entering High School, Sept., 1906.
8 License	" " 228 " " " " " 1906.

The educational gains for children appear also under State Prohibition.

Atlanta, Ga. In 1910 the number of public schools was 51; in 1918, 74; an increase of 45 per cent. Enrolled pupils increased 32 per cent. The number of students in higher institutions increased 35 per cent.—M. F. M. Burghard. (1. July 25, 1918.)

Arizona. The effect of prohibition is visible *in the schools*, in the banks, in the stocks of merchandise, in the dress of citizens, the churches, in all things to which we look for manifestations of economic conditions. This improvement began to be noticed immediately and was well under way in six months.—*Arizona Republican*. (1. June 5, 1919.)

The registration at the University has increased 56 per cent over the year 1914. On October 4, 1915, the total number registered was 342 against 219 registered on this date last year. The figure of last year's registration includes 25 preparatory students which department is not now in operation at the University. Including the preparatory students in last year's registration, and excluding any account of them in this year's compilation shows an increase of 56 per cent. in 1915 over 1914. If account of preparatory students is taken in the 1915 registration, the present increase would be over 67 per cent.

In co-educational schools the number of girls is usually greater than boys, but in the University of Arizona the boys predominate to a greater extent than in any university in the United States of the co-educational class. The great increase of attendance in 1915 shows a greater increase of boys than girls, showing the direct effect of prohibition, not only in the greater attraction due to the

elimination of saloons in Tucson, but in a large measure to the prosperity which has extended to many who heretofore compelled their boys to go out and seek work instead of education.

The common schools of the state show a total increase for 1915 of nearly 2,000 for the school year ending June 30. Throughout the state the enrollment upon the opening of schools in September, 1915 was considerably more than last year, but these figures for the entire state are not obtainable at this time. (6).

Utah. Salt Lake City. The best results obtained from prohibition are observed in the children of the city. School teachers tell me that a large percentage of their pupils formerly considered defectives have become leaders in their class. The reason for their poor work and lack of application was attributed directly to under-nourishment and an absence of the little things of life that make children happy and contented.

With prohibition in force the children are receiving more care from their parents, and as a consequence, devote themselves to their school tasks with more energy and derive greater pleasure from their work.—J. Parley White, Chief of Police. (1. Aug. 22, 1918.)

West Virginia. Charleston. It would be impossible for me to describe to you the wonderful change in the morals of the city since the saloon went out of business (July 1, 1914). The town has increased in population more than 8,000 people. There are 8 new churches that cost more than half a million dollars and 5 new school buildings.—G. E. Bruce, Mayor. (5. Oct. 27, 1916).

Ontario, Canada. Mr. James Buchanan, former president of the Ontario Educational Association, gave the following educational information at the annual convention of the Ontario Branch of the Dominion Alliance, Toronto, May, 1919. (3. June 13, 1919.)

"First of all there was the increased attendance in the schools. Next there was a desire for continuation classes. From the continuation schools the children passed into the high schools, and in 1913, in the Province of Ontario, as a direct result of prohibition the Government established 13 high schools."

Other economic results followed which reacted favorably for the schools.

"From information I have gathered from merchants there were certain results. First of all the school with the increased attendance and with the better service that was being rendered brought a large number of young people into the village. These young people traded, their parents traded, and increased trade came from prohibition or local option in the individual community. Furthermore, there came a greater willingness to pay taxes—one of the worst things in the world to do—for the school. There came a demand for new schools, and since prohibition came into effect, including local option, we have had more schools built in Ontario than during the 40 years previous."

In 1905 only 187 municipalities out of 794 were dry; in 1910, 405 out of 812; in 1911, there was a majority of 60 dry municipalities. Provincial prohibition went into effect September 16, 1916. Here are the statistics of school attendance given by Mr. Buchanan. In 1902, there were 584,512 pupils with an average

attendance of 57.58 per cent., an increase from 42 per cent. at a period when local prohibition was not being discussed or voted upon.

In 1912 the continuation schools had come into vogue. These demanded a higher character of school and a better grade of scholar.

	ELEMENTARY SCHOOL ATTENDANCE PER CENT.	CONTINUATION SCHOOL ATTENDANCE PER CENT.	HIGH SCHOOL ATTENDANCE PER CENT.
1902	57.58	58.97
1912	64.66	62.81	62.8
1915	66.69	66.81	64.6
1916	64.61	73.37	79.1
1917	64.92	73.15	78.15

The decline in elementary schools in 1916 was due to war conditions, boys went to work, some became soldiers, but the continuation schools' attendance increased.

In 1917 young men were asked to leave the high schools to enlist, but with a large percentage of them overseas, the increase over pre-prohibition periods practically held, because of the large number of girls who went on into the high schools.

From 1911 when there was a majority of dry municipalities in the province "technical and industrial schools increased by leaps and bounds," in the five years, 1911-1916, according to the 1917 report of Inspector Mills, the attendance at industrial schools increased from 3,750 to 20,126. "It is very curious," said Mr. Buchanan, "that we made such a large increase in the very class of people that we want to benefit—the young working men and women who were taken away from the bars.

"Dr. Merchant, one of the most scholarly men in the Department: 'The registration in the different schools has been larger for the year 1917 than for any previous year, the increase in some schools being very striking. Although most of the young men physically fit are in military service, and most of those who are left are working night shifts and overtime, the attendance in the men's classes has shown a marked increase, greater than in the schools for women.'

"The best institution we have today in the Province of Ontario is the industrial and technical school, and because we have no whisky our young men and young women are flocking in droves to seek the benefit that they bring.

"In Owen Sound there is a demand such as never before for higher education. The young men are seeking to spend their evenings, that they used to spend in debauchery, with this result that the demand for industrial and technical education is beyond the limit and the Minister had to appoint two new inspectors."

REFERENCES

¹*The Union Signal.*

²*American Issue.*

³*The Pioneer.*

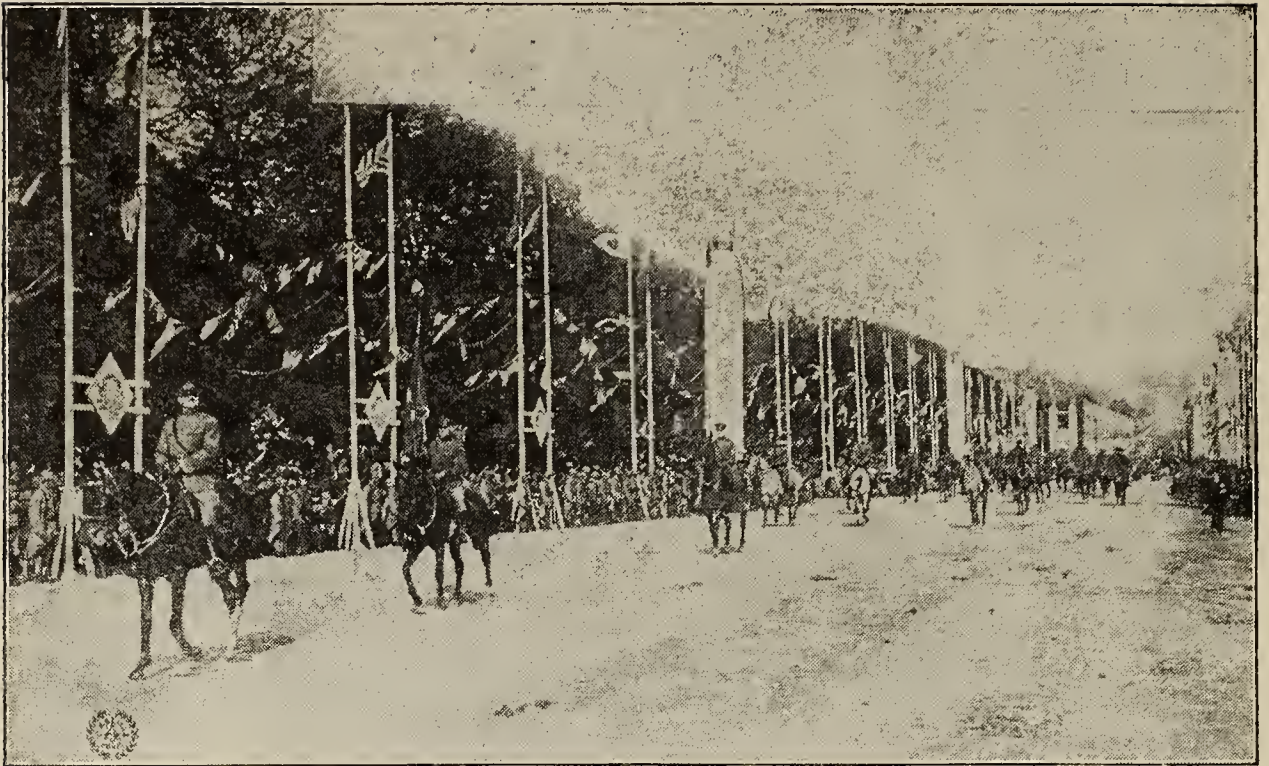
⁴Wm. J. Johnson: "The Question Answered," an address based on information personally obtained, delivered at the Chicago City Club, Sept. 25, 1917, and Chicago Woman's Club, Feb. 6, 1918.

⁵*Morning Tribune*, Los Angeles, California, published results of inquiries made in many states.

⁶Thomas K. Marshall: "The First Six Months of Prohibition in Arizona."

⁷Elizabeth H. Tilton: "Turning Off the Spigot." 1917.

⁸*A Square Deal*, Lynn, Mass., Dec., 1910.



GENERAL PERSHING IN THE JULY 14TH VICTORY PARADE IN PARIS, "A LIVING STATUE AT ONCE SO NOBLE AND SO SIMPLE, HE RECEIVED AN ENTHUSIASTIC WELCOME."—*A Paris correspondent.*

GENERAL PERSHING TO RETURNING SOLDIERS

IN leaving the scenes of your victories, may I ask that you carry home your high ideals and continue to live as you have served—an honor to the principles for which you have fought and to the fallen comrades you leave behind.

A CIVIL WAR SOLDIER'S EXPERIENCE

DUNCAN C. MILNER, D.D.

I WAS a soldier in the Civil War and became the adjutant of the 98th Regiment of Ohio Volunteer Infantry. At the battle of Chickamauga, September 20, 1863, I was wounded. A minnie ball passed through the large bone of the left forearm carrying away about an inch of the bone, and splintered fragments were scattered through the flesh. My comrades made a tourniquet with a bayonet and handkerchief to stop the flow of blood. Our command was ordered to fall back, and, supported by comrades on each side, I marched through the woods in the dark some four miles to the Ross cabin, at Rossville, where my wound was dressed. I lay on the cabin floor that night. The next day I was taken to the officers' hospital at Chattanooga.

The surgeon who first thoroughly examined the arm said at once it should be amputated. As it was so badly mangled, a council of surgeons said that a healthy stump could be cared for with greater safety and urged amputation. There was a great shortage of all kinds of supplies at Chattanooga. I begged that, if possible, my arm be saved. The surgeon asked me what my habits had been. I told him that I had never taken a drink of liquor, and had never used tobacco, and never indulged in any form of dissipation. He said that with such a record, if I were where I could have good food and constant attention the arm might be saved, but I was likely to have an unhealed wound for many years, if not for all my life. I decided to take the risk. Within two weeks I was at my home in Mt. Pleasant, Ohio, where I had every possible care. On my way I stopped in a hospital in Nashville and was again urged to submit to amputation, to be on the safe side. Some months after I was wounded an operation was performed, removing many splinters of bone scattered through the flesh. Our present antiseptic methods were then unknown, my wound was poisoned and I came near death from gangrene, followed by erysipelas. Fragments of bone worked out at intervals, the last one coming out eleven years after the battle, while I was pastor in Kansas City, Mo.

In 1864 I entered Washington and Jefferson College (carrying my arm in a sling) and graduated in 1866. I went to Union Theological Seminary of New York for two years, but from the effects of my wound and sickness from army life was not able to take a full course. I was one of nine fellow-students (most of whom had been soldiers) who were ordained in Kansas City, Mo., in 1868 and entered upon pioneer missionary work in southwest Missouri and Kansas. I had an active and laborious ministry for more than forty-five years. I am now in my seventy-ninth year, am considered quite active, and do much preaching, speaking and other work. My crippled arm was shortened and I would not have been able to do much manual labor, but it has

been of great value and comfort and has served me well and I have been thankful that I have had its use.

I am sure that had I been a drinking young man I could not have saved my arm and would not now be enjoying an old age of comparative comfort.

I would like to say to every soldier, "Cut out the booze." In abstinence only is safety.

WHAT IS GOING ON IN THE WORLD

The current foreign press has been the chief source of the material published on the following pages which represents an endeavor to picture the alcohol situation from within the various countries as reflected in their newspapers and other journals of the day. While all possible care has been taken to include nothing that is clearly unjust to the actual situation, it will be understood, of course, that it is not always possible to appraise with entire accuracy the events in another nation. These paragraphs, therefore, are to be regarded as "side lights," rather than as a comprehensive view of what is taking place throughout the world.

FINLAND

THE long deferred measure prohibiting all alcoholic liquors except very weak beer went into effect June 1, 1919, not, however, without protest from the French consul who invoked the right to importation of French wines. Italy, Spain and Portugal, all wine producing countries are reported to have made similar representations. (*Le Radical*, Paris, March 19, 1919.)

A stronger law was enacted by Parliament in July by a vote of nearly four to one.

Esthonia, near neighbor of Finland, coming to nationality is considering incorporating prohibition of the liquor traffic into its constitution now being drafted.

RUSSIA

THE exact temperance situation in Russia is difficult to determine owing to the country's unsettled condition. *L'Abstinence* (Jan. 31, 1919) reported that prohibition was now but a dream. This seems to be confirmed by reports published in several Paris papers in April. As they describe the situation from Stockholm correspondence, when the Soviets came into power in November, 1917, it was frequently stated that they intended to establish the vodka monopoly as a source of revenue. A proposition to this effect was placed before the governing powers in August, 1918, but was not adopted. Nevertheless numerous local Soviets in order to get money have granted license to distill spirits to firms and to individuals, the profits being divided between the distillers and the Soviets. In the province of Saratoff, the scheme is said to have brought in 120,000,000 roubles in five months (*La Victoire* and *Excelsior*, April 21, 1919) and has now extended to four other provinces. *Le Pays* adds to the story that this is not approved by the central Bolshevik government, and is treated as "non-official," but the government seems likely to be unable to stop it.

SWEDEN

UNDER the so-called "Bratt" law every person who wishes to buy liquors of more than 14 per cent. alcohol must have a card which entitles him to a small amount monthly. Here as in Finland national pressure against drink brings on international interference. The French representatives are reported (Stockholm correspondent of *Gazette de Lausanne*, May 16, 1919) to have demanded removal of restrictions which seem to militate against the French wine trade, and as undertaking "very energetic negotiations to secure admission into Sweden of an

annual amount of wine equal to that imported before the war. They say that the French representatives loudly and firmly suggested possible reprisals upon articles exported from Sweden to France. . . . The German consul-general also demanded that the foreign minister intervene in the Swedish system to soften measures against wine."

NORWAY

PROHIBITION of the sale of spirits was enacted as a war measure. In 1918, the Storting revised the law governing local prohibition of spirits. Previously a majority vote of all electors was required, so that if the opponents of prohibition stayed at home their vote counted just the same. Now, in order to retain the sale of spirits a majority of the voters must actually vote for it; in other words, it is now the prohibitionists who can stay at home and checkmate the liquor vote.

The abstinence party voted to demand a continuance of the war prohibition of spirits and strong beer until a general vote had been taken on the question.

POLAND

THE sale of alcoholic drinks was prohibited for the day when elections to the national assembly took place.

DENMARK

IN connection with the Danish general elections at which for the first time women voted equally with men, the temperance party submitted to candidates a comprehensive program including extension of local option for the prohibition or reduction of selling places; licenses not to be granted for more than five years; selling to minors under 18 years of age prohibited; prohibition of sale for "on-consumption" on Sunday, holidays and after 6 p. m. of the preceding evenings, increased penalties for violations; increase of the subsidy by the government for scientific study of and instruction on the alcohol question; compulsory temperance education in all grades of the schools; enforced internment and state support of alcoholics. A petition was presented to the government in January signed by 721,437 persons of whom 607,812 were men and women over 21 years of age, the remainder between eighteen and twenty years.

Meanwhile to meet the growing abstinence and prohibition sentiment, an "Association for the League of Personal Liberty" has been organized claiming to be quite independent of commercial interests. A private circular, however, came to light sent by a brewing official to the brewing trade in which the object of the new association was said to be "exactly in accord with the interests of the brewers," and a wine trade association sent out to its members a circular letter indicating that the various liquor organizations were working together to roll up a large membership for the "Association for the Defense of Personal Liberty."

ICELAND

THE attempt by the opponents of prohibition to abolish it has been met by a determination on the part of a large majority of Parliament to reinforce the law with measures that would prevent violations and evasions.

HUNGARY

IN the countries going through the revolutionary period no report can be accepted as the final or a permanent condition. When a democratic government was declared, it first announced prohibition measures, then relaxed them, especially permitting the sale of wine with meals at restaurants (*L'Abstinence*, Jan. 31, 1919). In connection with the March *coup d'état* bringing Bela Kun into prominence the new council, according to *Nouvelles hongroises* quoted by a Paris journal (March 25, 1919) prohibited the sale of spirits.

GERMANY

ON the subject of the present condition of the spirits industry in Germany *La Journal Industrielle, Financière, Economique* (Paris, Aug. 7, 1919) quotes a somewhat gloomy picture drawn by the *Deutsche Allgemeine Zeitung*. This is due, it is claimed, to the loss of the province of Posen occupied by the Poles which has taken from Germany not only its establishments for manufacturing alcohol, but also considerable quantities of alcohol and materials. In the provinces ceded to Poland under the peace treaty there were 958 distilleries. The report evidently refers to industrial as well as to beverage spirits. During 1918-19 the returns from potatoes were far below normal, falling to about 20,000,000 gallons. In 1917-18 there were about 11 million gallons devoted to military purposes. The production of fuel alcohol was 25 per cent. below normal. Uses for economic purposes amounted to 51.8 per cent. of the total production as against 45.6 per cent. in the preceding year.

La Welt am Montag (June 7, 1919) claimed that during the war the military establishment had great reserves of spirituous liquors which were liberally used to reward heroic deeds to incite others to new exploits, but that at present "alcohol is used to maintain good morale among the workingmen to whom every fortnight a litre of spirits is sold astonishingly cheap."

During the war, *Kölnische Volkszeitung Mor. Ausg.* (Jan. 16, 1919) relates, the abstainers in the army found themselves snubbed or otherwise unpleasantly treated if they did not join in the drinking especially in officers' mess. This happened sufficiently often to get to the ears of the Prussian War Minister who denounced the action publicly in an order of December 14, 1917, saying, "I hold it inexcusable to force young people to drink against their will and to look upon total abstinence as a mark of unfitness for an officer. Such conceptions must be absolutely reversed."

ROUMANIA

All authorizations to import alcoholic liquors are revoked except in the case of handling drinks which arrived in the country before March 6, 1919, according to a dispatch in *La Terre Vandoise*, Lausanne (Sept. 6, 1919).

AUSTRIA

IN the plans made for a general strike in Vienna by the Workmen's Council to "manifest solidarity with the international proletariat," prohibition of the use

of alcohol for the day of the strike (July 20) was to have been ordered. (*Feuille*, Geneva, July 19, 1919.)

ITALY

THE ANTI-ALCOHOLIC LEAGUE OF FLORENCE, through Dr. Paulo Amaldi, director of the Florence Insane Asylum, has sent to the Italian Post-War Commission a report with corroborative documents upon the urgency of action against alcoholism in Italy.

ALCOHOLIC INSANE INCREASING

The report states (*L'Abstinence*, May 3, 1919) that the number of alcoholics admitted to public insane asylums multiplied by four during the twenty years ending 1911; that in 1910 from thirty to thirty-five per cent., in certain localities, seventy-five per cent. of the cases of violence were connected with drunkenness.

The extent of alcoholism judged by the evidence from insane asylums, varies, according to this report, with different parts of the country in a scale of almost regular decreasing intensity from Northern and Central Italy to the Southern provinces and islands. The high level of alcoholism in the north is as serious as in the adjoining countries of western continental Europe.

Fortunately the figures are lower in the southern provinces and islands where the appearance of alcoholism is more recent, but is rapid and not at all negligible, especially in the provinces which are large sources of emigration as Catanzaro. The report suggests the necessity, therefore, for prompt and energetic measures to check alcoholism where it has become serious and to prevent its spread where its foothold is more recent but "menacing that precious human reserve that the war has revealed to Italy in its abundant southern and island population."

WINE THE PRINCIPAL DRINK

For the question, What is the principal vehicle of alcoholic intoxicants in Italy? the report has this answer:

The average annual per capita consumption of distilled liquors is estimated at 1.5 litres, but being largely consumed by the sub-alpine regions, the individual consumption is actually much higher. The average per capita consumption of beer is barely one litre. But in the case of wine, the average the last years before the war, per capita consumption had reached the enormous figure of 140 litres [about 35 gallons]. It is impossible not to note the prime importance of wine as a cause of alcoholism, the principal cause except in sporadic intensified effects, etc., in certain limited regions where there is added to it the influence of distilled liquors.

CORRESPONDENCE OF WINE AND ALCOHOLIC INSANITY STATISTICS

The insane asylums, Dr. Amaldi asserts, afford unhappy corroborative evidence of the causal relation of heavy wine consumption to alcoholism. "It is a fact noted in all our asylums that successive and immediate variations in the admissions of alcoholics correspond inversely with the variations in the price of wine. In the period, 1909-11, the price of wine throughout Italy increased giving annual averages of 19, 31, and 43 lire. During the same period the per-

centage of admission for alcoholic insanity in the 53 asylums of Italy diminished 14.7 per cent. in 1909, 13.8 per cent. in 1910, and 9.7 per cent. in 1911. Add to this the fact that the inverse proportion between the number of admissions of alcoholic insane and the price of wine is perfectly verified in the very regions where the consumption of distilled liquors is least and where the use of wine prevails.

COMMERCIALISM INCREASING ALCOHOLISM

The use of wine is furthered and encouraged, the report declares, not alone by widely spread false ideas ("superstitions") about alcohol and its benefits, but by commercialism which overproduces beyond normal desires and then "exerts a fatal pressure for over consumption. . . . So many of our poor workmen expend from one-third to one-half of their daily earnings."

Suggestions for checking and preventing the spread of alcoholism include emphasis on the necessity of combating the immoderate use of wine which need not involve the ruin of viticulture but should plan for its gradual transformation to the production of grapes suitable for the table, raisins, non-alcoholic wines, and table delicacies. Provision should be made for school temperance instruction; government aid should be given to temperance propaganda; there should be legislation restricting the sale of liquor, and giving the privilege of local option.

BELGIUM

At the beginning of the war the Belgian government prohibited the use of spirits and their public consumption; German officials continued the prohibition during their occupation. While it was not completely enforced, as spirits grew scarce and the cost increased consumption decreased (*Bulletin de l'Alarme*, July, 1919) from 5 litres per capita in 1913 to about one litre in 1917, with a sensible diminution of alcoholic criminality and insanity. With the end of the war there appears to have been a determination that the old pre-war conditions, which are said to have included one drink-shop for every 34 people (*Independence Belge*, Brussels, July 29, 1919), should not return.

NEW SPIRITS LEGISLATION

The first step is naturally against spirits. The spirits bill lately passed aimed a two-fold attack upon spirits—by imposing high taxes and by forbidding sale for public consumption.

Foreign spirits and drinks of all kinds were made subject to taxes ranging from \$1.80 to \$14 per gallon according to kinds and alcoholic strength. The internal revenue tax on spirits of Belgian manufacture of 50 per cent. alcohol was fixed at about \$7.00 per gallon. An additional tax on native spirits was raised from 7½ to 30 cents per gallon (*Journal de Charleroi*, Aug. 11, 1919). The second feature of the bill aimed at preventing the public consumption of spirits, or the holding of them in stock in places open to the public. Violation of this provision might result in closing the selling place.

The Socialist party supported the measure. Another measure is aimed at the drink shops, increasing the "opening tax" of new shops, insisting on managers

of "morality," i. e., good moral character, and observance of elementary rules of hygiene.

LIQUOR OPPOSITION

These proposals to limit even the spirits trade have brought forth vigorous opposition from all the liquor interests. In March a general meeting in Brussels under brewery patronage had a parade and passed a resolution demanding that the government recall its prohibition of spirits. Cafés all along the line of march closed as a species of demonstration (*Journal des Cafétiers*, April 1, 1919). The distillers protested in June against the permission to export beverage spirits into occupied portions of Germany while prohibited at home (*Le Metropole*, Antwerp, June 14, 1919) the protest being based on the ground that the "loyally obedient distillers," etc., had already suffered heavy losses under restraint for six months. (*Le Moniteur de l'alimentation*, Brussels, July 1, 1919.)

The National Federation of spirits dealers and brokers got up a special meeting of protest against prohibition of sale of spirits in cafés (*La Presse*, Brussels, Aug. 8, 1919). They decided to issue posters to enlighten the public as to their "woes" (*Le Soir*, Brussels, Aug. 14, 1909). The National Federation of hotels, restaurants and cafés addressed to the Senate a long letter with counter proposals for legislation on the grounds that the present bill "sacrificed unjustly and uselessly the interest and means of subsistence of over 500,000 Belgians; the new opening tax would prevent construction of large hotels, etc., needed for foreign tourists; would promote drunkenness in the home, consumption of impure liquors"; and all the other usual arguments. They proposed, rather, more severe legislation against public drunkenness, against illegal sale of spirits, a normal and 'not prohibitive' increase of the tariff. The cabaretiers promised to put up a list of candidates at the next election which they hoped to elect. "No doubt," says *Le Soir* (Brussels, Aug. 13, 1919), "they will bring to Parliament an elegant solution of this two-faced question—some measure that will kill alcoholism without killing the alcohol dealer."

CHARACTER OF NEW RESTRICTIONS ON SALE OF SPIRITS

The new Belgian spirits law (*La Gazette*, Brussels, Sept. 9, 1919), prohibits absolutely the sale of spirits "for consumption on the premises in all places accessible to the public." Nevertheless spirits in quantities of not less than two litres at one time for "off-consumption" may be bought in stores other than the regular on-consumption drink shops. The tax on spirits has been quadrupled in the hope that this will cut down consumption (*Le Soir*, Brussels, Aug. 26, 1919). Sellers for fermented liquors for on-consumption are also put under some new restrictions in the effort to secure dealers of "good character," but these in several instances are not applied to dealers already in business when the law goes into effect or in other cases who were in business before Dec. 14, 1912. Orders are given for certain sanitary provisions to be observed.

License fees which cover five years are fixed ranging from \$120 in places of less than 5,000 inhabitants to \$500 in cities of over 50,000 population; dealers on steamboats, railroad trains, etc., pay \$200. Hotels and pensions are not consid-

ered selling places subject to license fee. These license fees are payable by "new dealers" but there are exemptions by interpretations of the term. Dealers who have been out of business during the war may resume as "old" dealers before March 20, 1921, or March 20, 1924, according to circumstances. "Old" dealers exempt from the fee include not only those now in business but those who continue a business in the same place, even the business of a parent. Other sections appear to allow considerable freedom from the license fee which presumably was fixed in the idea of reducing the number of selling places.

Fines for violation of various sections range from \$5 to \$250 with the alternative of imprisonment for non-payment. The penalties are doubled for repetition of the offense.

FRANCE

The National League against Alcoholism is carrying on an active propaganda by meetings, films, and posters for the prohibition of spirits. The League has recently been awarded a prize of \$75 for a plan for reorganizing the sections devastated by the war and has participated in conferences for reconstruction work. Already in many villages the soldiers "huts" have been transformed into civic "huts" or centers of the coöperative reconstruction work. After four years the Workmen's Anti-Alcohol Federation was called together again in Paris in June (*Humanité*) and plans as rapidly as funds can be secured to establish in the cities of France non-alcoholic bars or cafés.

PARIS JURY ASKS FOR RELIEF FROM ALCOHOLIC CRIMES

The members of the jury of the Seine (*Le Figaro*, Paris, Aug. 17, 1919) sent a statement to the Minister of Justice asking that he use his influence to obtain legislative measures that will reduce alcoholism. Of 17 cases before them in the Session covering the last two weeks of July, 14 were acted upon and "in 10 alcohol was the inciting if not the only cause of the crimes in connection with which 7 lives were lost." The jury's memorial frankly states that the time and strength of juries, lawyers and judges could be more usefully employed than on alcoholic crime to say nothing of the economy of human life.

A few days later the same court sentenced to 20 years at hard labor (*La Démocratie Nouvelle*, Paris, Aug. 21, 1919) a youth of 18 years who in a drunken state quarreled with the victim about a girl, stabbed him so that he later died, threatened to throw his employer into the Seine when she tried to quiet his excitement, and later wounded her, also a soldier who tried to intervene.

The same court six months earlier (*Eclair*, Feb. 18, 1919) had before it the son of an alcoholic father and insane mother, himself an inveterate alcoholic. Twenty-three convictions had preceded the arrest leading to the present trial for deliberate murder of a teamster who was unloading a bar of iron that fell in the street at the feet of the passing Frenchman. The latter procured a weapon, returned and shot the teamster. At the trial he wept and declared that he recalled nothing about the act. "Why should I have shot a man I did not know?" He was declared responsible by the medical expert and condemned to five years' imprisonment.

These official protests against the drunkenness which many Americans do not believe exists in France are typical of many demands for governmental action that will reduce the evil.

Some lightening of restrictions on spirits is being made in some sections; in others new decrees have been put into operation this year.

SPIRITS PRODUCTION

The production of spirits in 1917 as lately reported in statistics amounted to 1,491,508 hectolitres. This represents a decrease of 677,333 hectolitres from the average of ten years preceding 1916 (*L'Expansion Agricole*, Metz, May 10, 1919). The total production for the nine months ending June 30th was 570,661 hectolitres as against 1,036,499 hectolitres in the same period of the preceding year (*Le Journal Petit Parisien*, July 23, 1919). The restriction was greatest on spirits derived from apples and pears.

OFFICIAL ACTS ON DRINK SELLING

Vice-Admiral Moreau, governor of the port of Brest issued an order, April 29, 1919, prohibiting the sale to French and allied soldiers and sailors of alcoholic drinks other than wine, beer, cider, wines of liqueurs and their imitations containing less than 18 per cent. alcohol, and sweet liqueurs of less than 23 per cent. The order applied also to Colonial and Chinese laborers under the direction of the Ministry of War and of the Navy. The Mayor of Amiens has issued an order establishing protective zones of 100 metres (about 100 yards) around public buildings in which no new liquor selling place may be opened. (*L'Etoile Bleue*, July-August, 1919.)

The Military Governor of Lyons in June (*La Dépêche de Lyon*, June 28, 1919) issued an order on selling or giving wine in and about the railroad stations. It forbade anyone to sell or give away to any person or in any quantity, wine, vermouth, wine spirits and their imitations, spirits of every kind, between the hours of ten and six o'clock on week days and during the normally closed hours on Sunday and holidays. The order was issued in behalf of the local and general interests of the territory under the military government of Lyons and the fourteenth region.

In the Vosges (twenty-first region) the retail sale of spirits for on consumption by civilians was prohibited by military orders June 11th except with meals from 12 to 2 and from 7 to 9 o'clock in the evening. Women and minors might not purchase at any time. Former orders applicable to soldiers remained unchanged.

In Paris the chief of police has extended the hours for the sale of spirits which were restricted by an order of June 27, 1917 (*Bulletin des Halles et des Marches*, April 25, 1919). Sales to minors and women at all hours was still strictly forbidden in cafes and restaurants, but the sale to male adult civilians for on consumption is permitted after the evening meal from eight to ten o'clock and after "breakfast" from twelve to two o'clock.

HYGIENE COMMITTEE DEMANDS RESTRICTIONS

The National Committee of Physical and Hygienic Education organized in April an interallied Social Hygiene Congress. Resolutions were adopted calling for complete suppression of home-distilling, limitation of liquor shops to one for each 300 inhabitants, rigorous enforcement of the laws against drunkenness, against selling liquor to minors and the employment of women in drink shops. It was agreed also that places selling drink containing no alcohol ought to be tax free, that all drink shops should be heavily taxed, that places selling tobacco, matches and postage stamps should be completely separated from shops selling drink. Preventive measures were recommended such as preparation of teachers to give anti-alcohol instruction, the suppression of moving picture films representing scenes of violence or crimes, the installation of civic centers with food booths.

THE QUESTION OF A SPIRITS MONOPOLY

Parliament is wrestling with the problem of future control of the manufacture and sale of spirits. The creation of a state monopoly has had many advocates as have projects for developing the industrial alcohol industry.

The advocates of monopoly wish the government to assume it for both beverage and industrial spirits believing that thus the home distillers could be suppressed and that it would enable the government by manipulating prices to encourage industrial alcohol production, to discourage the beverage alcohol production, to reduce the number of drink shops and thus "to combat effectively the evils of alcoholism" (Connevot in *L'Entente*, July 1, 1919). Incidentally it is estimated that this would bring in a national revenue of two billion francs. Up to the middle of August the two houses of Parliament have not been able to agree on all points of a bill that would give the state monopoly of industrial alcohol beginning October 1, 1920. Meanwhile immediate action of some sort was necessary as the government was holding large amounts of alcohol that it had reserved for military purposes, so it was agreed that the President should issue a temporary decree to govern the situation until permanent legislation should be enacted (*Le Progrès*, Aug. 17, 1919).

Under this decree the government has a monopoly on the distillation of industrial alcohols, the minister of finance can buy and sell spirits reserved for the government. This applies also to Algeria. The government alone may import colonial spirits other than rums.

LIQUOR INTERESTS IN ARMS AGAINST RESTRICTIONS

Meanwhile no restriction or proposition to place limitations on the liquor traffic goes unopposed.

The American Rockefeller Commission on tuberculosis apparently found it necessary to state explicitly to the trades unions of Bordeaux and the Gironde that in its strictly anti-tuberculosis program it "never contemplated opposing wine but alcoholism and this evil alone." Yet the Committee of the Red Cross reporting the unanimous conclusions of tuberculosis specialists affirmed that the disease is closely linked with the manner of living and conditions of labor. It recom-

mended encouragement of all legitimate efforts toward ameliorating these conditions mentioning among others of first importance the question of alcoholism. (*Petit Nicois*, Paris, April 13, 1919).

A Paris correspondent of *France de Bordeaux* under date of April 10, 1919, reported as more lively than ever the international committee of the wine and spirits trade whose representatives had just met in Paris and aired their griefs over the advantage the "abstinents" had taken of the war to "undermine the power of wines and brandies." To meet the situation the congress agreed to conduct propaganda of the use of these beverages on the ground that this would combat alcoholism.

A proposition in Parliament to make limitation of drink shops a feature of reconstruction in the devastated area brought the plea from a number that the "liquor sellers deserved consideration" (*La Presse Sociale*, Paris, March 13, 1919). The trades union of the hotels, cabarets, and wine shops struck at Bar-le-duc closing their places of business for a whole Sunday because the civil and military authorities refused to accede to their demands that soldiers from the garrison and in transit be allowed to enter their places at all hours of the day. (*La Victoire*, Paris, April 14, 1919.) Representatives of the wholesale and retail drink trade assemble to discuss all the general prohibitions, restrictions and increase of taxation on the trade and declared that no further exceptional measures should be taken against this trade. (*Petite République*, Paris, April 21, 1919.) Wine dealers, hotel men and restaurant keepers met in a great assembly at the Trocadero. Declaring that while they were willing to share proportionately in the necessary financial burdens of the nation, they nevertheless demanded in part that before the end of the session of Parliament all laws, decrees and orders prejudicial to their commercial liberties should be abrogated, suppression of the license, general amnesty for all the offences and violations incurred in the exercise of their professions since August 1, 1914. In case no heed was paid to these and other demands resolution was taken to carry the issue back to the electoral field (*Le Matin*, June 11, 1919).

ABSINTH MAKERS WANT COMPENSATION

The absinth manufacturers demanded compensation for the prohibition of their business and to give it a popular "democratic" appeal for the municipalities affected by the stoppage, a pathetic plea was made for the poor laborers especially for soldiers formerly engaged in making absinth (*Intransigent*, Paris, April 29, 1919), a proposition that *Vérité* of the same date declares "the limit," remarking that apparently these manufacturers do not feel equal sympathy for the increasing number of the "victims of this horrible evil," these manufacturers "whose work has caused humanity more ruin and victims than war."

INTERFERENCE WITH OTHER NATIONS

The Chamber of Commerce of Macon (France) addressed to the government a protest against the Belgian project of reorganizing the fiscal regime relating to alcohol and of efforts to suppress alcoholism because these projects "would be very prejudicial to French exportation." It also demanded that the government

interpose with the Canadian government to allow French wine of over 15 per cent. alcohol to enter Canada, especially Quebec. (*Le Matin*, June 30, 1919.) According to *Le Radical* (March 19, 1919) the French consul vigorously protested against the shutting off of French wines from Finland by the prohibition law that went into effect June 1st.

The Minister of Commerce and Industry instructed the commercial chargé to the United States to try to secure some amelioration of prohibition of importation of French wines (*La Revue Vinicole*) and urged that while British and American officers and sailors were in France pains should be taken to show "these future consumers" the vineyards, plants, wine cellars and methods of the French wine industry in order to familiarize them with the idea of the excellence of the product.

MOROCCO

IN this Mohammedan country under French control a decree which went into effect April first authorized the importation, manufacture and sale of beverage spirits except those "recognized as dangerous by the public authorities." There were distinctly prohibited, spirits made aromatic by chemical products, plants or essences containing normally thuyone and certain benzoic or salicylic compounds. The maximum proportion of essences permitted in the unprohibited liquors was fixed at one gram per litre.

MARTINIQUE

THIS colony of France is a large producer of rum. It exported into France during 1916, 1917 and 1918 an annual average of nearly two and one-half million gallons. (*La Politique*, Paris, April 5, quoting official statistics.) In April the Committee of Defense of the General Interests of Martinique announced that the producers had on hand 10,000,000 gallons of rum that they were anxious to dispose of at a moderate price. Shipping conditions made it difficult to get this rum to France or elsewhere. "Meanwhile it is indispensable (*Annales Coloniales* quoted *Le Soir*, April 6, 1919) that the production of rum be neither arrested nor stopped . . . nearly the whole of the 1918 product is on hand. . . . How will the manufacturers pay the planters and expenses of manufacturing if they have not realized on the preceding year's product, or where will they store it, especially as the government compels them to store the rum it had requisitioned [for military purposes]?" Hence the urgency to get this into human consumption!

INDO-CHINA

A PROFIT in 1918 of 4,017,009 francs was declared from the distilleries of Indo-China, a dividend of 100 francs (\$20) per share being declared (*La Liberté*, Paris, July 6, 1919). In Tonkin there were deliveries of over 2,000,000 gallons of spirits; in Cochin-China, over 800,000 gallons.

CHINA

SILAS BENT in the journal of the American Asiatic Association (*Asia*, June) describes the methods used by agents of the American brewers in advertising their wares in the Orient in the following language: "A blaring band

makes its way through the crooked, narrow streets in the walled city of Kinkiang. In its wake marches a group of men, Americans and Chinese, bearing high placards. Shopkeepers, school children, coolies and amahs stop to listen to the strange music, and to stare at the sign, whereon beer is advertised in Chinese as 'a sure cure for opium.' "

A bill has been introduced into the Congress of the United States which would prohibit American citizens from engaging in the liquor traffic in China.

BRITISH EMPIRE

THE CENTRAL BOARD OF CONTROL (Liquor Traffic) now permits the sale of liquor for on-consumption $6\frac{1}{2}$ hours per day, 5 hours on Sunday. For off-consumption beer may be sold $4\frac{1}{2}$ hours daily except Sunday when the sale is allowed for 4 hours; spirits for $2\frac{1}{2}$ hours at mid-day Monday to Friday inclusive. A person may, however, obtain intoxicating liquor to consume with his evening meal up to 11 p. m. in any licensed premises or registered club where he is spending the night.

The order prohibiting treating was revoked June 3, 1919. Restrictions on the output of beer which had prevailed for three years were withdrawn July 21, 1919; its alcoholic strength it is estimated has been increased from slightly over 3 per cent. (volume) to a little over 4 per cent. (*Alliance News*, August, 1919.) The amount of beer for the financial year of 1919 was about 22,748,000 barrels as against 19,085,000 in 1918, and 37,558,767 in 1914 before the war. It is anticipated by the Secretary of the Treasury (July 9) that for the year ending March 31, 1920, the amount of beer available for drinking will probably be not less and probably greater than in the year ending March 31, 1914, that is, about 37,500,000 barrels. The average alcoholic strength will be weaker by about three-fourths of one per cent. (by volume). The probable consumption of spirits will be about 18,000,000 gallons. At the present authorized prices this will mean a total expenditure for the year of over £400,000,000 as against £170,000,000 in pre-war days. (*Alliance Press Agency*, Aug. 18, 1919.) The amount of spirits retained for consumption in the United Kingdom in 1918 was 14,681,000 gallons which included 1,573,000 gallons in Ireland. The quantities estimated for 1919 are 14,000,000 proof gallons and for 1920, 21,400,000 gallons. The quantities of spirits are regulated by the Food Controller; the strength by the Central Board of Control.

According to the Board's figures the consumption of absolute alcohol by volume fell from 92 million gallons in 1913 to 37 million gallons in 1918. The weekly average of convictions from drunkenness fell from 3,632 in 1913 to 548 in 1918 (ending Nov. 10). Deaths from alcoholism fell off between 1913 and 1917 about $68\frac{1}{2}$ per cent.; from liver cirrhosis, $61\frac{1}{4}$ per cent.; infant suffocation $42\frac{1}{2}$ per cent. It is understood that a Liquor Commission will be set up to take the place of the Control Board which continues at least until Orders in Council announce that the war is ended. (See page 157.)

Mr. George B. Wilson, statistician, estimates that during the war period (August 1, 1914–December 31, 1918) the total expenditure in Great Britain on

alcoholic liquors was not less than £975,000,000 or approximately £100 (\$500) per family:

SCOTLAND

THE SCOTLAND TEMPERANCE ACT which gives the right of local option on saloons granting of liquor licenses comes into operation in November, 1920. Under this act 10 per cent. of local voters may call for a vote. If 55 per cent. of the votes cast, representing 35 per cent. of the registered electors, are in favor of no-license, no license can be granted for three years or until the vote is reversed. If the vote is a bare majority, the number of licenses may be reduced by 25 per cent. If entire no-license is not carried, the no-license votes will apply to the vote for the reduction of licenses.

The Grand Lodge of Good Templars in Scotland at its annual meeting (*Good Templar*, Sept., 1919) by resolution called upon the new educational authorities to include systematic teaching of Hygiene and Temperance as a part of the education of every child in the regular curriculum of all day and continuation schools and in the training of teachers, because of "the imperative necessity for educating the young in the dangers to health and character associated with the use of intoxicating liquor."

IRELAND

THE TEMPERANCE EDUCATIONAL BOARD which promotes school temperance education in Ireland represents the Church of Ireland, the Presbyterian and Methodist churches in Ireland, Irish Temperance League, Hibernian Band of Hope Union and Derry Temperance Council. It offers gold medal and money prizes for examinations on the subject of alcohol. This year 5,322 scholars and 24 teachers presented themselves for examination at 85 centers in Ireland on two examination days, May 9 and June 20. (*The Witness*, Belfast, July 18, 1919.) The Board has prepared a syllabus for next year, the text-book to be used being Dr. J. B. Hunter's "Alcohol and Life." (*Everybody's Monthly*, July 1, 1919). During the winter and early spring of 1920 lecturers will visit the schools using the syllabus as the basis of their instruction.

AUSTRALIA

THE temperance program of New South Wales includes six objectives (*Grit*, July 31, 1919): State prohibition by bare majority without compensation; pending the adoption of prohibition, local option by a bare majority; six o'clock closing; no separation of the wine or other liquor industry from the effect of a referendum; effective law enforcement.

Temperance wall sheets are provided for schools in Victoria supplemented by lessons published in the school paper. Examinations upon these are held every year. The Independent Order of Rechabites offers book prizes, and handsome certificates for all who pass the examination. It also offers four scholarships.

The "Strength of Empire Movement" organized in Victoria in 1918 has the support of nearly 80 organizations in its campaign for permanent six o'clock closing, and a simple majority state-wide vote in the coming local option poll (*The Call of Empire*, August, 1919). Complete prohibition is its ultimate goal

During the first twelve months about 280 branches were established in Australia and over 1,000 public meetings for educational and propaganda purposes were held.

NEW ZEALAND

THE government brought forward in April a referendum on prohibition which included a proposition for compensation of the liquor interests. The civilian vote showed a majority of 13,896 in favor of prohibition, but the vote taken overseas of the soldiers who were, in many cases, misled by false representations made by the liquor interests, retained the license system by a majority of 10,362. Forty-eight thousand voters did not vote at all (*Vanguard*, July 12, 1919). Another poll will be taken this fall, when the voters must vote on (1) continuance of the present regime; or (2) state purchase and control; or (3) national prohibition.

AFRICA

THE British government in March prohibited for the present exportation into British West Africa of all spirits, except those under licenses granted by the colonial authorities. (*Alliance News*, April, 1919.)

IN Cameroon, according to a missionary, E. Allégret (*Le Témoignage*, Paris, July 30, 1919) the French government immediately on occupying it after taking it from the Germans absolutely prohibited the importation, sale, etc., of spirits and prohibited the sale to *natives* of wine and beer. The prohibition has been strictly enforced with most happy results even in the eyes of the natives who recognize what a deliverance it is for their country.

WEST AFRICA SPIRITS IMPORTATION AND RESULTS

L'Abstinence (Feb. 28, 1919) reprints from *L'Europe Nouvelle* an article by J. Cesne, president of the West African Section of the French Colonial Union, who shows the importance of prompt restrictive measures of alcoholic liquors. His statistics indicate that the total importation of spirits in French West Africa rose from 4,707,718 litres in 1905 to 8,506,776 in 1911, and in 1913 was 7,197,428 litres. In the train of these spirits follow, to quote M. Cesne, "physical degeneracy, diminution of births, tuberculosis, insanity, increased criminality. If energetic measures are not taken immediately to check this evil, we must expect to see our black peoples disappear little by little."

Before the war the spirits came largely from Germany or Holland. These sources having been necessarily largely closed, the *United States* became an important source of supply of what liquors came in, although there was a large falling off in importation with consequent benefits to the natives.

In 1917, the United States exported to Africa 1,183,723 gallons of spirits. (Annual report U. S. Bureau of Foreign and Domestic Commerce, 1917 and Summary, June, 1918.)

AFRICAN CHIEF OPPOSES LIQUOR FOR HIS PEOPLE

Chief Khama of Bechuana and other heads of the Bamangwato tribe have sent a protest to the whites of South Africa against supplying their natives with

either beer or light wines (*Alliance News*, March, 1919). Khama stated that if the project to permit this became law it would be useless to ask him for laborers for Johannesburg mines as he would not permit them to go. The licensed sale of wines and beers had been suggested as a possible preventive of illegal sale of spirits. The threat of Khama to withhold laborers was a serious one for the mine owners (*L'Abstinence*, April 30, 1919) who were already short by 50,000 of the necessary number of laborers owing to the terrible ravages of the influenza and the natives' reluctance to go into the mining regions for fear of contracting the disease.

MEXICO

THE state of Sonora has been under prohibition of intoxicating liquors since 1915. Illicit trade from adjoining states became so annoying that the governor is reported (letter *Journal American Medical Association*, July 26, 1919) to have ordered shot anyone found manufacturing or dealing in these liquors. Later reports state that this particular order was rescinded, but the fact that it was issued does not indicate a cordial welcome for American brewers in that Mexican state. Yucatan and Sinaloa are also dry.

ARGENTINE

A BILL has been introduced in Congress designed to limit the sale of alcoholic drinks (*Le Journal, Paris*, July 16, 1919) by imposing a license fee on all shops authorized to sell liquors and prohibiting sale elsewhere under the penalty of imprisonment. Provision is also projected for the creation of a special institution to treat alcoholics.

WORLD LEAGUE AGAINST ALCOHOLISM

As the outcome of a Conference at Washington, D. C., in June, at which representatives from Australia, Canada, Denmark, England and Wales, France, Ireland, Japan, Mexico, New Zealand, Scotland, Switzerland, and the United States were present, a "World League Against Alcoholism" has been inaugurated. The objects of the League are:

1. To educate mankind regarding alcoholism, which is the poisoning of body, germ-plasm, mind, conduct and society, produced by the consumption of alcoholic beverages.
2. To secure by legislation the suppression of the manufacture and sale of alcoholic beverages throughout the world.

The membership of the League is limited to organizations which are in harmony with its objects, and which are national in the scope of their operations.

It is not intended that the World League shall supersede or interfere with the organizations already existing in various countries for the promotion of prohibition. Its object will be the collection of information and the provision of literature, the encouragement of scientific research, and the strengthening of every national effort for the suppression of the drink traffic. It will be the business of its Executive to survey the whole field of action and bring its forces to bear wherever there is special need for aggressive action.

While welcoming into its fellowship any organization that regards prohibition as its ultimate goal even if its immediate aim does not reach so far, the World League stands for a dry world as its ultimate ideal, and among its most important tasks will be the effort to prevent the spread of the drink traffic to countries like China and Japan which the great American brewery firms are already preparing to invade; and it will support the work of the societies that are laboring to protect the native races of Africa from the evils of the liquor traffic.

The international character of the League is expressed in the nomination of its four Joint Presidents: The Right Hon. Leif Jones, president of the United Kingdom Alliance; Dr. Howard Russell, founder of the Anti-Saloon League of America; E. Vandervelde, Belgian Minister of Justice, and Dr. Robert Hercod, secretary of the International Temperance Bureau at Lausanne. The treasurer is Miles Vokes of Toronto; the secretary, Ernest Hurst Cherrington, Westerville, Ohio, general manager of the publishing interests of the Anti-Saloon League of America. Eventually it is hoped to establish International Bureaus of Temperance Information at Washington, London and Lausanne, where information as to every phase of the world-fight will be registered and available for all enquirers. The cost of maintaining the League will be borne out of funds contributed by each of the affiliated organizations and by voluntary subscriptions.

BOOK REVIEWS

THE CONTROL OF THE DRINK TRADE. By Henry Carter. Preface by Lord D'Abernon. London, New York, Bombay: Longmans, Green & Company. Second edition.

British control of the drink traffic during the war was avowedly undertaken to promote national efficiency, and it is from this standpoint that the Board of Control (Liquor Traffic) directed its work. This second edition of a book written by one of the members of the Board carries eighteen months farther the story of its methods, experiences and results. Considerable additions have been made to the first edition especially under the heading of "results."

Official statistics show a steady decline in deaths due to or connected with alcoholism and cirrhosis of the liver accompanying activities of the Board of Control. The former decreased 68 per cent. between 1915 and 1917, cirrhosis of the liver, 43 per cent. Making all due allowances for the withdrawals of men for military service (in which chronic alcoholics would seldom be accepted) Lord D'Abernon is of the opinion that the restrictions placed upon the traffic operated to reduce drinking and its fatalities. Attempted suicide cases fell from 1,608 in 1915 to 935 in 1917. Cases of delirium tremens in Poor Law Infirmaries in scheduled areas decreased in men 44 per cent., in women 51 per cent. the first year, and 65 per cent. and 76 per cent. in the second complete year of restrictions. Cases of suffocation of infants from overlying (which in a large proportion of cases is due to maternal intemperance) decreased from 680 in 1914 to 222 in 1917.

Influences other than the Board of Control's policies which contributed to sobriety were the restrictive orders from naval and military authorities and licensing justices, self-restraint growing out of the seriousness of the war situation, counter attractions, some limitation of output of liquor, the increased retail price. The effect of absence of men on service the author feels was considerably counterbalanced by the presence of overseas dominions' troops, of Belgian refugees and of a necessary influx of agricultural and industrial workers from Ireland.

The author and Lord D'Abernon agree that it is impossible to return to old pre-war conditions, that when the Control Board's powers lapse something must be done to consolidate what gains have been made. "The measure of improvement in industry, health, and social order . . . is a just criterion of the loss that would follow complete abandonment. It is almost inconceivable that such a loss should be deliberately incurred during the period of social reconstruction when an unparalleled call must be made on the brain and muscle of the nation." Lord D'Abernon while not convinced apparently that complete prohibition is the way out for Great Britain, nevertheless avows that "if the



A FORMER SALOON IN BETHLEHEM, PENNSYLVANIA, CONVERTED BY THE YOUNG MEN'S CHRISTIAN ASSOCIATION INTO A SOFT-DRINK BAR AND SOCIAL CENTRE. THE MEN IN THE PICTURE ARE LARGELY DEMOBILIZED SOLDIERS.

NON-ALCOHOLIC CANTEENS IN INDUSTRIAL PLANTS ARE INCREASINGLY FREQUENT IN THIS COUNTRY AND GREAT BRITAIN (*See next page*) AS A MEANS OF SUPPLYING WORKERS WITH HEALTHFUL AND UNINJURIOUS BEVERAGES.

choice lay between prohibition and a relapse to pre-war conditions, I should not hesitate to support prohibition at any cost rather than be a party to the national disgrace which would be involved in a deliberate and voluntary return to a lower level."

One of the important features resulting from the Board's work emphasized in this edition was the establishment of 840 industrial canteens serving approximately 1,060,000 workers. Over 95 per cent. supplied no intoxicants. About 130 of the establishments were conducted by voluntary societies, the remainder by the firms concerned.

PROHIBITION IN CANADA. By Ruth Elizabeth Spence. Toronto, Ontario: Ontario Branch of the Dominion Alliance. \$2.50.

This history of the struggle against the evils of liquors and against the liquor traffic carries the reader back to the earliest days of settlement, the difficulties at once experienced as early as 1629 due to the exchange of fire-water for furs. Brandy became "the chief source of profit in the English, French and Indian fur trade in spite of the express prohibition of the governors and the strong opposition of the church." Bishop Lavel and the Jesuit missionaries from the beginning undertook to prevent the natives from intoxication, but for time being unsuccessfully. Later, the Indians were the first people of Canada to receive legal protection against the liquor traffic.

Undertaken as a memorial to Francis S. Spence who for many years before his death in 1917 was perhaps the most influential leader in the Canadian temperance movement, the volume traces the history not only of the movement, but that of the various organizations which had part in it. As in the United States, Canada's temperance reform in the nineteenth century began with the question of personal use, first abstinence from spirituous liquors, later entire abstinence from all alcoholic beverages. "Not only historically but logically," Mr. Spence is quoted as saying, "the temperance movement in its personal aspect lies behind the prohibition propaganda."

The influence of the Maine law movement in the middle of the century made itself felt in the Maritime Provinces and in Canada but secured no permanent foothold. The demand for prohibition, however, never ceased and through all the intervening years has lain behind Canadian legislation which, for fifty years, was along local option lines. Never losing sight of the ultimate goal of complete prohibition, the temperance organizations worked local option for all there was in it. Meanwhile temperance instruction was introduced into the public schools, a general public sentiment favorable to sobriety steadily increased. The Dominion Alliance which became the center of the forces working for legislation against the traffic grew out of a convention called by sixteen members of the House of Commons, and declared from the beginning its intention to use its efforts in such ways as will "best promote the suppression, the sale and use of intoxicating liquors throughout the Dominion."

The story of the struggle of the various provinces toward prohibition is interestingly told. Prince Edward Island came under complete provincial pro-

hibition in 1902, Nova Scotia in 1916, New Brunswick in 1917; Quebec permits the sale of light beer, cider and wines; Ontario came under prohibition in 1916, confirming it by a heavy vote, October, 1919, taken after the soldiers' return; Manitoba adopted prohibition by popular vote in 1916; Saskatchewan went under prohibition in 1917; Alberta in 1916; British Columbia in 1917; Yukon Territory by Order in Council, 1918. During the war Dominion orders-in-council (1917-18) practically stopped the manufacture of intoxicating liquor for beverage purposes, transportation or delivery of such liquors into provinces prohibiting their sale; importation of intoxicating liquors into Canada. These provisions were made effective during the war and for twelve months after the conclusion of peace.

The volume is a valuable one not only in its preservation of the history of the movement in Canada, but as an outline for readers in other nations of the general course of the temperance reform both for Canada and the United States. About seventy-five pages are devoted to brief summaries of the status of the question throughout the world.

TROZOS SELECTOS EN PROSA Y VERSO. Compiled by Hordynia K. Norville. Buenos Aires: Lega Nacional de Templanza.

A collection of Spanish prose and verse temperance selections for use in oratorical contests by children and young people. It is compiled by the South American representative of the World Woman's Christian Temperance Union, dedicated to Carlos Guido y Spano, honorary president of the Literature Committee of the Argentine National Temperance League which publishes the little volume.

A SCHOOLMASTER OF THE GREAT CITY. By Angelo Patri. New York: Macmillan Company. \$1.25.

What America can gain from adopted sons and daughters shines out from this volume by one of them who, born in Italy, is principal of a great school in New York and not only has vision of what education might and ought to do for the child and the nation but sees how to do it. To him the public school, with its thousands of diverse personal problems involved in the variegated lives of his pupils, should aim not at turning out a uniform product but at training each child, with coöperation of home and community, along the lines of its fullest possible development. Further, "the child is the only one who can carry the message of democracy if the message is to be carried at all. If the child fails to make the connection between the ideals of the school and the fundamental beliefs of the people, there is none other to do it. The children are the chain that must bind people together."

As usual there were the small "Pats," ill-kept who "did not attend school. Notices sent home by the teacher were unanswered. In the hands of the neighbors the case became a simple one. The father drank and was seldom home. He had no job. The mother went out to work but could not make enough for food and clothing. Pat needed clothes. He needed food. He needed medical

care. He was clothed, fed, had his teeth fixed. He was kept at school and that was the end of the matter. There were others like Pat who, for want of proper food, were unable to go on with their work."

It is a fascinating story, rich in illustrative detail from experience and observation, of a struggle forward in educational methods to focus the child's capabilities, home surroundings and influences, and school opportunities upon the individual and citizen to be, and reminds the reader once more of the republic's indebtedness to its teachers, imperfect and handicapped though their work may often be.

WHAT LIFE INSURANCE TELLS

The Death-rate of Men who drank daily when insured Two Glasses of Beer or One Glass of Whiskey was 18 per cent higher than the average rate. It was 86 per cent higher among men who drank more.



STATISTICS FROM RECORDS OF FORTY-THREE AMERICAN LIFE INSURANCE COMPANIES COVERING 2,000,000 POLICY HOLDERS
—From Stereopticon Slides of Scientific Temperance Federation.

NOTE AND COMMENT

Life stories as written in insurance records impress one at once with the fact that all the truths in the world are old truths, says Forrest F. Dryden, president of the Prudential Insurance Company of America in an article of the title given above. (*American Magazine*, Aug., 1919.)

Tests, British war experience and personal experience, for instance, prove that the commandment to rest from labor one day in seven is physiologically sound and necessary.

"We will go a step further and say that our records in general simply tend to prove that the man who would live long and be happy can have no better formula than the Ten Commandments. Clergymen and farmers are popularly supposed to lead as moral and as wholesome lives as any two classes in the population; and the records of insurance companies—as might be expected—show that *they* represent apparently the best risks. About the worst risks, of course, are makers of high explosives, aviators, submarine workers, and those who are exposed to the constant irritation and infection of injurious dust.

"But, side by side with those whose occupations involve physical danger come saloonkeepers, who have an extra mortality of seventy per cent., as shown by an extensive investigation conducted jointly by the Actuarial Society of America and the Association of Life Insurance Medical Directors.

"The investigation further showed that hotel proprietors, who tend bar only occasionally, but who take frequent drinks, shorten their lives on an average six years by the fact. Even the proprietors of wholesale liquor houses die before their time; and, indeed, among all the fourteen classes of individuals connected in any way with the liquor business, the only class which was found not to have an excessive mortality was that of the *proprietors of distilleries*.

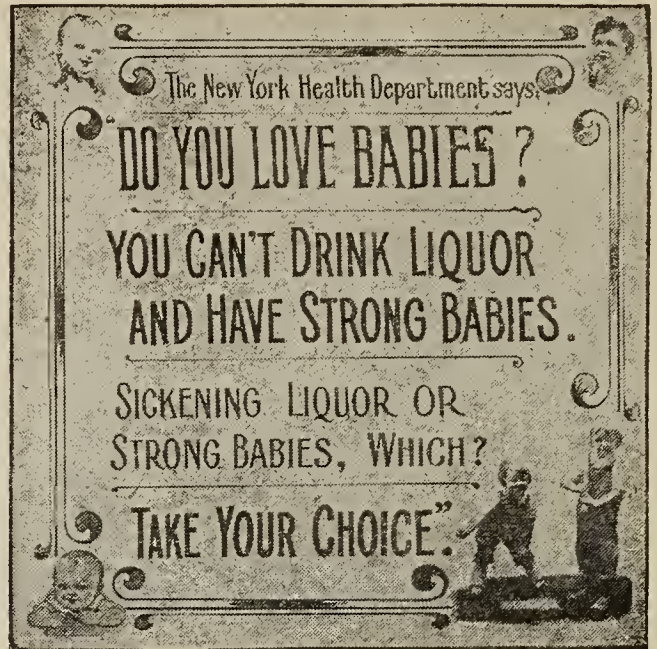
"The same searching investigation—which was based upon an examination of the life records of more than two million policy holders in forty-three companies—dealt a hard blow to the popular notion that the sowing of wild oats is innocuous, provided a man repents and reforms in his youth. The wages of sin is always death; even though a sin be long since forgotten, it is likely to have its wages finally, in a shortened period of activity, and an earlier end. The records proved clearly that decency and temperance pay; that the total abstainer outlives the occasional drinker; and that the man who has been a steady drinker in his earlier years, even though he reforms, has almost certainly shortened his life."

The child's disease known as rickets is due to faulty nutrition, but certain factors in the parents such as tuberculosis, syphilis and alcoholism predispose to the disease by diminishing the child's resistance.—Arthur I. Blau, M. D., in *Monthly Bulletin*. N. Y. Dept. of Health, June, 1919.

No intoxicating drink for children is the theme of a declaration lately issued by the International Association of Abstaining Physicians. (*Ligue de la*

Croix, July 5, 1919.) The organization includes about 2,000 physicians of Great Britain, the United States, Sweden, Norway, Finland, Germany and Austria. The manifesto declares that the administration of alcoholic liquors to healthy or sick children is, in the light of present medical knowledge, absolutely unjustifiable and should be prohibited. It bases this conclusion "on the following irrefutable facts:

- "1. Relatively weak doses of alcohol taken regularly and for long periods provoke serious diseases in children.
- "2. Alcohol exercises a very injurious influence on organs of digestion, formation of blood, and thus upon the entire development of the child.
- "3. Character, temperament, and intellectual capacities are profoundly affected by the use of alcohol; the more the child drinks the slower is his mental progress.
- "4. The use of alcohol is particularly dangerous at puberty. It certainly should be wholly prohibited until the end of this period, at least until eighteen years of age.
- "5. The custom of giving alcohol to children who are sick, weak, anemic, convalescent, or without appetite is absurd, and extremely dangerous, because alcohol not only poisons the child's organism but can create an insatiable appetite for these poisonous drinks."



Alcoholism is increasing among women in the Department of Manche, France, according to a report lately published by the French Academy of Medicine. (*La Libre Parole*, Paris, August 28, 1919.)

In addition to the usual causes are to be added the disorganizing influences of the war, loneliness, voluntary or involuntary unemployment, war monetary grants. The report of Dr. R. Le Clerc, finds one evidence (which, however, because of its dates seems to indicate pre-war rather than war causes) in the cases of insanity. From 1886 to 1895 the insane constituted 6.19 per cent. of those admitted to the asylums; from 1896 to 1905, 9.8 per cent.; from 1906 to 1915, 23.39 per cent., almost four times the proportion of thirty years ago. Women of the abandoned or criminal classes becoming insane were 100 per cent. alcoholic, those engaged in handling liquor (waitresses, sellers, etc.) 83.33 per cent.; those engaged in agriculture only 42.85 per cent.

The population of this department is one of the strongest and healthiest of

France, so that the high and increasing rate of female alcoholic insanity is regarded as of serious portent.

Another report on general alcoholic insanity comes from Havre where a report made to the Municipal Council (*L'Alsace*, May 8, 1919) indicates that from 1912 to 1917, the alcoholic insane constituted 20.4 per cent. of male admissions for insanity, and 23.1 per cent. of female admissions, a general average of 21.9 per cent.—more than one in five.

The insane cost in 1918 alone about \$25,000 or a minimum of over \$5,000 “imposed on the municipal budget by alcoholism.” “How much misery the city could have relieved with this \$5,000,” comments the newspaper.

Prohibition “Hits” Philadelphia Hospital. William D. McAllister, superintendent of “Blockley” stated that admissions from July 1 to 15 were one-half as large as for the same period last year. Supt. McAllister said that the number of inmates at the women’s almshouse department at Blockley and in the men’s department at Holmesburg is the lowest it has been for some time. Rum and social disease are said to be responsible for 70 per cent. of the admissions to the almshouse.—*Journal American Medical Association*, Aug. 2, 1919.

The importance of the part played by alcohol in the occurrence of venereal disease is seen from the fact that it is one of the three causes held to be chiefly accountable for the physical unfitness uncovered by the war. In a paper read before the Public Health Section of the American Medical Association (*Journal American Medical Association*, Sept. 13, 1919), Dr. C. St. Clair Drake says: “Of the disclosures made by the various examining boards, none excited more general comment than that of the great prevalence of venereal disease and tuberculosis—the two diseases which in many ways have been longest neglected in our public health activities.”

Early in 1919, an interdepartmental committee was appointed in Great Britain to consider what measures should be taken to mitigate the dangers of the dissemination of tropical and other diseases among the civil population during the demobilization of troops. (*Journal American Medical Association*, Sept. 20, 1919.) A note on prophylaxis against venereal diseases has just been issued in the form of a report to the minister of health. In analyzing this report the *British Chemist and Druggist* says of the relation of alcoholic liquors to these diseases that their immoderate use “not only diminishes the sense of responsibility, but tends to prevent the proper use of prophylactics and to delay the individual’s application for skilled treatment.”

A British fleet surgeon, Dr. W. E. Howe, writes from Marseilles (*British Medical Journal*, Aug. 2, 1919) criticizing an article previously published on the question because it was devoted merely to methods of prevention ignoring the problem of why men in the service put themselves in the way of contracting disease—“a question to which the broad answer is, Drink. If you cut off drink you destroy prostitution as a business proposition.

“Regulation will diminish venereal disease, particularly the worst sort, and is useful; so is prophylaxis; but they attack this public health problem too late.

One-third of the total admissions to the sick list in the army in 1906 were venereal; one-third of the total day's sickness in the navy that year were venereal. The usual experience from year to year was that one-third of the illness of the navy was due to venereal disease; and I have never found any fleet surgeon to dissent from the view, which experience forced upon one, that two-thirds at least of the venereal cases occurring in the service were contracted when the patient was under the influence of drink.

"Alcohol damages first the most highly developed cells in the brain, and diminishes at once self-consciousness and self-control. Hence the greater pull which flaunting prostitution makes on men who have 'the drink taken.' No endeavor to limit venereal disease without dealing with the drink question can be thorough. As well might one attempt to extinguish a fire due to an escape of gas, and fed thereby, without cutting off the gas. Such would truly be 'the policy of the ostrich.'

"A United States medical officer told me that in his town in Tennessee where they had, before prohibition, a 'red light' district with a thousand women living in it, since prohibition these ladies had all left town.

"Little has been said lately about this relation of drink and venereal disease, but it is to be remembered to his lasting honor that Dr. Grenfell of Labrador wrote a short note to *The Times* in 1917 drawing attention to the importance of prohibition in the prevention of venereal disease.

"Drink they have taken helps to make women prostitutes; drink men have taken is the chief adjutant of prostitutes. It is hard to get this argument stated in the press of this country which seems to me to be very tender with the arguments against drink. Women are unconsciously more friendly to men who have taken a little drink and have so become more susceptible, more forward. But, wine is a mocker, and often cheats women of the prize, marriage, for which they are angling. It makes the men less persevering, and often ultimately unmarriageable.

"There are other things worse than prostitution; these also are fed by drink. All of us who regularly read *The Times* must remember the astonishment with which we first read there the word syphilis. That marked a brave attempt to wake up England in regard to this danger. It is still necessary to wake England up thoroughly. There are enormous difficulties in the way, silent, unconfessed, but with enormous inertia resisting movement."

New tests of the effects of alcohol on combined nerve and muscle work are reported from England, performed by Dr. H. M. Vernon, Major Greenwood, also a series by Dr. Edward Mallanby on the rate of absorption of alcohol and of its disappearance from the blood. A more extended account of these experiments will be given later. Typewriting, the use of an adding machine, and target pricking were the objects of observations. The Greenwood and Vernon experiments both showed that small doses of alcohol well within the limits of what would be deemed moderation seriously increased mistakes. Dr. Vernon found that above a certain minimum which varied with individuals the increase

in errors paralleled the increase in the amount of alcohol taken. Dr. Mallanby found that absorption of alcohol into the blood is rapid; its disappearance is slow but regular; he thinks that if a second dose is given before the whole of the first has disappeared from the blood the amount of alcohol in the blood will be the greater by this proportion.

Interesting at the present stage of discussion as to what are intoxicating drinks is Dr. Vernon's conclusion that the obvious signs of drunkenness are not due to the drinker being suddenly overcome by the last glass. He was nearly drunk before and the last glass merely took him over the border line. These conclusions says the *British Medical Journal* (Aug. 16, 1919) are very much the same as that expressed in Sir Wilfred Lawson's epigram which annoyed so many worthy people at the time it was uttered—"Drinking is the cause of drunkenness."

French physicians want alcoholism checked in behalf of anti-tuberculosis effort. The Paris Medical Society while declaring its readiness to take up actively all measures against tuberculosis that will promote the interests of the patient and of the country as a whole, (*Journal American Medical Association*, July 12, 1919) has passed a resolution opposing the proposal to make tuberculosis a reportable disease *while the government does not put into effect a program aiming at the limitation of the consumption of liquor, the strict enforcement of the law on drunkenness, the sanitation of insanitary dwellings, and other preventive measures.* But it evidently believed that the government should shoulder its responsibility for conditions that promote the scourge of tuberculosis.

MORTALITY OF CHILDREN OF DRINKING MOTHERS



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CHILDREN IN BLACK DIED UNDER TWO YEARS—55 PER CENT

MORTALITY OF CHILDREN OF SOBER MOTHERS



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THE SOBER MOTHERS WERE RELATIVES OF THE DRINKING MOTHERS (Fig. 17)
AND HAD SOBER HUSBANDS

PAMPHLETS AND REPORTS

MATERNITY CARE AND THE WELFARE OF YOUNG CHILDREN IN A HOMESTEADING COUNTY IN MONTANA. By V. I. PARADISE. Bureau Publication No. 34.

INFANT MORTALITY. A Field Study in Brockton, Mass. By MARY F. DEMPSEY. Bureau Publication No. 37.

INCOME AND INFANT MORTALITY. By JULIA C. LATHROP. Report from *American Journal Public Health*, April, 1919.

JUVENILE DELINQUENCY IN RURAL NEW YORK. By KATE HOLLADAY CLAGHORN. Bureau Publication No. 32.

MENTAL DEFECT IN A RURAL COUNTY. By WALTER L. TREADWAY and EMMA O. LUNDBERG. Bureau Publication No. 48.

RURAL CHILDREN IN SELECTED COUNTIES OF NORTH CAROLINA. By DR. FRANCES S. BRADLEY and MARGARETTA A. WILLIAMSON. Bureau Publication No. 33.

All of these publications are issued by the United States Children's Bureau, Washington, D. C., except the third, the author of which is the Chief of the Bureau.

THESE reports should be in the libraries of everyone interested in child or general social welfare, especially the second, third, fourth and fifth. They are not only full of important information, but they are readable, and throw side lights on many aspects of life not indicated by the titles, such, for example, as the thrift and good citizenship of the Brockton residents of Swedish extraction, the thrift and desire for children's education on the part of recent Italians, and, in the North Carolina report, the ambitions and struggles of the parents and children to what they crave for better living.

HEALTH OF PIONEER MOTHERS AND BABIES

Both the North Carolina and the Montana reports reveal the price the mothers pay for pioneering. It is no easy task to "beat a thoroughfare for freedom throughout the wilderness." These tragedies of women in pioneer life appear in the surveys of these two states in the conditions under which motherhood is borne. Distance from medical or nursing facilities, small, inconvenient houses, heavy work incident to pioneer conditions, are the common lot of these mothers of a new or remote country. Out of 463 women in Montana, all but 9 had to carry waste water out of the house, 428 or 92 per cent had out-of-doors work of some form to do. One mother, three months before her child was born, was hauling with horses and wagon half a mile practically all the water used for domestic purposes and for six horses, pumping the water and filling the barrels by pailfuls. County or district cottage hospitals and district visiting nurses are recommended as one solution for a difficult situation for women and children.

LOW INFANT MORTALITY IN A DRY CITY

Notwithstanding the unfavorable external conditions, the infant mortality in rural Montana was lower than in any city the Bureau had studied, only 71 deaths under one year of age per 1,000 births. Even Brockton, Mass., which has low infant mortality rates (Publication No. 37) lost 98 per 1,000.

Brockton was selected for study partly for this reason, partly because it is a city of a single industry employing skilled workers and paying high wages. For many years Brockton has been a no-license town.

Naturally the father's earnings are considered the best single index of the standard of living of the family. The fathers of 88 per cent of the babies included in the various city surveys made by the Children's Bureau, Miss Lathrop states in the *American Journal of Public Health*, earned less than \$1,250 a year; 27 per cent earned less than \$550. As the income doubled the [child] mortality rate was more than halved."

In Brockton the earnings of the father appeared to have a much less definite influence on infant mortality than in other cities studied. "To what extent this was due to the good conditions which prevailed throughout the city," says the report, "to what extent to the absence of saloons, or to chance variations due to small numbers could not be determined." The report found in this industrial no-license city relatively high wages, intelligent workers, few mothers gainfully employed away from home, exceptionally good housing conditions, an excellent sewerage system, a good, well-enforced law regarding milk. The infant death rate was the lowest in any of the five cities so far surveyed with the exception of Saginaw, Michigan. All were industrial cities, and the rates per 1,000 born alive were the following:

Saginaw, Michigan	84.6
Brockton, Massachusetts	96.7
New Bedford, Massachusetts	130.3
Johnstown, Pennsylvania	134.0
Manchester, New Hampshire	165.0

For the first time in connection with these surveys the relation of drink to infant mortality is recognized, though it must be said there appears to be some reluctance to credit local prohibition with its share for a relatively low death rate or for the good civic conditions that contribute to the rate. The report says:

"Alcoholism is recognized as one of the important causes of infant mortality. Hence, the no-license of Brockton which has been in effect every year since 1886, with the single exception of 1898, was believed by many inhabitants of the city to be a factor in the low infant mortality rate.

"While it is easy to show the effect of drink on infant mortality in specific cases, it is difficult to state how many infants' lives are saved by Prohibition of the sale of liquor. Any influence which tends to make healthier parents, better homes, and more contented families will tend to reduce the number of infant deaths. In common with most of the complex social and economic factors underlying the causes of infant mortality, the effect of Prohibition, although admittedly beneficial, can not be measured directly. In a city having excellent sanitation facilities, a strong sense of civic pride, good wages, and intelligent workers, the abolition of saloons might follow either as cause or effect."

EXPERIENCE CONFIRMED BY OTHER DRY CITIES

Brockton's policy of not licensing saloons began within five years of its incorporation as a city, and, as everyone acquainted with its history knows, has not been achieved without hard, purposeful work. The possible relation of no-license as a cause is suggested by the figures from other cities. The report shows that Brockton for the four years 1910-1913 was one of the three Massachusetts cities of more than 50,000 inhabitants that had an infant mortality rate of less than 100 per 1,000 babies: Somerville, 90; Brockton, 94; Lynn, 99. Lynn, like Brockton, is a city of shoe industries. Somerville, like Brockton, has long been a no-license city. Lynn was a no-license city during all the years named, in fact, has been a no-license city since May 1, 1908, with the exception of 1914 and 1915.

The average infant mortality for the twelve cities of this class of over 50,000 inhabitants was 110.

Statistics on deaths of children under one year of age in all Massachusetts cities for the period 1901-1914 compiled by Mr. Robert H. Magwood show that the rates of stillbirths and infant mortality per 1,000 births were as follows:

	STILLBIRTHS	DEATHS UNDER 1 YEAR
All cities	49.9	130.2
Generally license	42.2	138.7
Sometimes wet, sometimes dry	37.1	118.4
Generally no-license	37.3	101.6

DRINK AND RURAL JUVENILE DELINQUENCY

TWENTY-ONE rural communities in New York state were the source of the material for Miss Claghorn's study of the juvenile delinquency in 185 children and young people. All the

children included were generally regarded as "bad" in the neighborhood. This brought out "all varieties of childish misconduct—the 'badness' that is really bad and duly punished, the 'badness' that is such only because someone has decided it should be punished, and the 'badness' that ought to be dealt with and is not." Information was secured directly from the families concerned, teachers, ministers, justices of the peace.

From the facts brought to light which are related in detail as portraits of certain rural families or conditions, it appears that "there is a problem of juvenile delinquency in rural districts and a serious one." Waywardness, mischievousness, truancy, cruelty to animals, disobedience, offenses against decency and property, all emerge in the children of this group in varying degrees of seriousness. Sex troubles began at an early age, children eight or ten or even earlier carrying on practices whose meaning they do not know taught as a game by older children. Physically and mentally the children were of all types, but in general there were two classes, "the active, enterprising, intelligent child—the born leader—and the duller and more stupid child, the natural complement, accomplice and victim of the first type. The obviously defective child is in the minority."

Homes, churches, schools, social opportunities were studied in the light of their relation to these children's development and often found deficient. State, religious and educational organizations should acquaint themselves with the information there is here as to the needs of work that should be done, the local worker needs the support of outside forces to cope with inertia within. Too often, apparently, both fail to meet community needs.

The 185 children belonged to 144 families. Records were obtained for 130 families. For over half the cases a "broken home" could not be held responsible. These children were living in families headed by a married father and mother, from whom normal parental care might have been expected. Only the relations of drink will be reviewed here.

In the records of 144 families, 43 men were addicted to drink, 21 to some form of sex irregularity. "One frequent type is the union of a rough, domineering, drunken father with an ignorant, down-trodden, inefficient mother." Three of the women were addicted to drink; 31 were sexually immoral. In some cases the delinquents belonged to "the best families in town." One boy stole money to buy a bicycle; "his case seemed to be one of too much responsibility. His father drank, his own life consisted of unremitting hard work and no play, and the bicycle seemed an irresistible temptation."

"Doc," a sturdy boy of thirteen of cherubic cast of countenance, gives much trouble. He often accompanies his father who works on the state road and gets drunk with the gang. "Doc" is given his share, and when he became partially drunk his father and the other men regarded it as a huge joke.

Ada is the daughter of a man who ten years ago became a heavy drinker, ceased to support his family adequately, and once when intoxicated threatened the life of his wife, who a few days later committed suicide. The father then kept a woman of questionable reputation in the home and the children were constant witnesses of gross drunken debauches. Ada at fourteen was sent to a state reformatory for immoral conduct; her brother at seventeen is vulgar, profane, thieving and a drunkard.

Lizzie, without any standards of behavior though of normal mentality, is the daughter of a lazy and foul-mouthed drunkard as is Bessie of another family.

Walter, "a pathetic little ragamuffin of ten, driven by poverty to take things not belonging to him," is the son of a drunken, dissolute tenant farmer who regularly beats and insults the mother.

Clyde's father is the black sheep of a good family, a good-looking, intelligent man, but a drinker and a member of a gang of men who drink and have a reputation for dishonesty. He was very stern with Clyde but gave him no actual training.

Elizabeth, who pilfers, has a mother degraded mentally by drink who begs or steals food and clothing. The town of 1,200 inhabitants has three hotels and two saloons and is a tough town; "almost any night the streets are infested with drunken men and 'wild' girls."

Maurice, who engages in malicious mischief, is the son of a drinker who finally abandoned his family now adequately supported by the mother.

Violet is one of eleven children borne by her mother before 39 years of age. The father drank terribly and when drunk abused his wife and children; the mother was unwilling to keep house and care for the children; more than once they separated. The last time Violet tried to keep house for the three younger children. The father drank, abused them, insulted her and finally turned them out of doors with the snow on a cold winter night. Violet finally went to live with a married sister where an intoxicated boarder assaulted her, and the girl thus became a mother.

Sam, who before sixteen was a burglar, was the son of a drinking railroad section hand who was killed as he lay drunken across the rails. After various juvenile misdeeds, Sam appears now to be doing well.

Estelle, aged ten, the leader of improper talk and conduct, is "the bright and shining light of the school." Her father drank so heavily that her mother left him. Her accounts to other children show that she must have seen much that was degrading.

John lives with his step-grandfather who is a shiftless farmer and heavy drinker. The farm is within 100 feet of a corner saloon around which he hangs a good deal.

Elizabeth, smirched by a vicious community, is the daughter of a man belonging to one of the old families of the town, but a drinker and degenerated until he has become a casual laborer. The mother is a quiet, sad woman whose life has been spoiled and has never had strong influence with her daughter. One brother, aged sixteen, was recently brought home drunk from a neighboring city by a man who formerly ran a saloon in the home town. He was very angry when the town voted no-license and has since attempted to show that a no-license town is as bad for the boys as a license town. His method is to take boys in his automobile to a neighboring city and get them intoxicated.

Emily, a normal, well-behaved girl, at sixteen had an illegitimate child by a man of forty who wished to marry her and took this method to force the parents' consent. Her father represents run-out pioneer stock of the town, is drunk most of the time, and the family is always near starvation.

Henry is the son of "Long Tom" who came from a good family and was left by his father a good farm, good dairy cows, a team and \$500. Drunken and lazy, he let the place go to complete ruin, uses all his money for drink, lies drunk along the road many a night. The family lives in low-down poverty.

The Marsh boys, who under careful supervision might develop into capable men, live with their drinking father and the various women he has had in the home since the mother died. The women stay till they tire of his drunkenness and cruelty. Often the father comes home late at night and the boys must wait up to take care of the horse or get a beating. The neighbors say he has tied the oldest boy to a tree and thrashed him with a horse whip.

These are a few of the cases in which drink has helped set the stage for spoiling young people's lives in rural New York. The report indicates also the influence of the saloon in towns in attracting young folks who have little suitable opportunity for change, amusement or recreation.

The North Carolina report gives an excellent all-round picture of the health, home, and educational and social conditions of rural children, black and white, lowland and highland. Here is the same need that Montana presents for better care of mother and babies. Educational facilities are still far below what are required and often inadequate to satisfy the ambition of parents, both white and black, who do not believe that "What was good enough for us is good enough for our children."

DEFECTIVENESS AND DRUNKENNESS

The "Study of Mental Defect in a Rural County" related to Sussex county, Delaware. In four families having one defective child each, the parents were mentally normal but were alcoholics, immoral, or otherwise of poor reputation. In 14 families, drunkenness, immorality or neglect or abuse of children accompanied parental feeble-mindedness or ignorance. The report says of the interrelation of alcoholism and mental defect:

"The coincidence of mental defect and alcoholism or immorality creates most serious conditions of degeneracy. It was difficult to discover the facts concerning the prevalence of

alcoholism and immorality in the families studied because the information was mainly secured from interviews with the mothers. Alcoholism might be presumed to be of small proportions in this county because it has been for some years no-license territory. The 20 of the 123 white children and 7 of the 69 colored who had parents reported as alcoholic at the time the investigation was made, or as having been alcoholic formerly, indicates, however, that this problem is by no means non-existent."

The fruits in human lives of liquor selling and liquor using will not all immediately disappear with abstinence and Prohibition, especially if the latter was only local or of a relatively small unit.

THE SOCIAL EVILS OF ALCOHOLISM. PRACTICAL METHODS OF COMBATTING IT. (*Le Mal Social de l'alcoolisme. Moyens pratiques de le combattre*). By FENELON GIBON, Secretary of the General Society of Education and Instruction. Paris: Reprint from *la Revue pratique d'apologétique*, Aug. 1, Sept. 15, and Oct. 1, 1917.

While superficial observers in this country reiterate that though one sees wine-drinking everywhere in France he sees no drunkenness, Frenchmen who are studying the social conditions of their country are sounding continual warnings against its alcohol. One of these Fénelon Gibon, in this series of articles reprinted as a brochure, has threaded together observations of leaders upon the conditions in France due to drink, the social, economic and political difficulties in dealing with it, the inadequacy of governmental measures thus far, and the necessity of radical action as regards spirits. Like most French writers on this subject, these are not yet ready to consider wine as such a part of France's alcohol problem. Among those quoted are Dr. Bertillon, Jean Finot, Dr. Legrain, Ferrero the Italian historian, Joseph Reinach, long one of the temperance leaders in Parliament and president of the Anti-Alcohol Commission of the Chamber of Deputies, Ribot, a minister of finance, Henri Schmidt, another parliamentary leader, in a long discussion of an Alcohol Monopoly, quoting the Commission of Hygiene.

FRANCE MENACED BY ALCOHOLISM

The net conclusions are that France is suffering terribly and her national life menaced by *alcoholism*. This, the author is careful to emphasize, must not be confounded with *drunkenness*. "They are two entirely distinct things. The dangerous one that we must set ourselves to fight is above all alcoholism, that inveterate passion which almost passes unperceived and which is debasing the race threatens the very future of France."

PHYSICAL AND FAMILY EFFECTS

Thus in his conclusion he reverts to the warning with which he begins his article quoting from Dr. Bertillon, chief of statistical works of the city of Paris, who said in 1917, "Of all the political and social problems disturbing our epoch there are two which above all others demand the attention of French statesmen:

"1. The decrease in births, which threatens the existence of the nation.

"2. The extension of alcoholism, which threatens the quality and the worth of the citizens.

"That is, as the number diminished their quality decreased."

These two evils, Gibon declares, are peculiar to France because he claims it is the only country where the birth rate barely equals the death rate, and the country where alcoholism is making the most progress.

"In no country has the consumption of spirits made so much progress, and we are the more inexcusable because it is we who produce the most wine."

One evidence given of the physical effects of alcoholism in France is the increasing number of rejections for military fitness in France and in several other countries where there appears to be a correspondence in the curves of increasing alcoholism and decreasing physical fitness, while in Sweden, where the consumption of alcohol is decreasing, physical fitness is improving. Rejections in Sweden during the high alcohol consumption amounted to 29 per cent.; now they are no more than 19 and 20 per cent.

"Economists are agreed that the true social unit is not the individual but the family."

Now the mortal enemy of the family is alcohol. It preys upon the health, engenders misery, transforms the upright and honest father of the family into a vicious and awful brute. It is this—and there is its unpardonable crime—that makes mothers weep, and impresses its taint upon the body and mind of the children. In place of robust workers and strong soldiers in whom are proclaimed the wealth and strength of a nation, alcohol multiplies poor, degenerate, weak beings without vigor and without virtue."

Obviously the writer is not here saying that this description is of the French people as a whole. He is describing the victims of alcoholism and raising the warning that they are increasing.

On the moral effects of alcohol he cites from the report of the Minister of Justice to the President of the Republic in 1909:

"It is violence that constitutes the special crimes of the alcoholics and the drunkards. Bloody or avaricious attacks and injuries, immoral brutalities, are the crimes most frequently engendered by the abuse of alcohol."

POLITICAL POWER OF LIQUOR INTERESTS

At the beginning of his consideration of methods to combat the evil, the author lays bare the legislative difficulty, the cupidity of the great and small liquor interests, the moral weakness and real importance of those that are called "the authorities."

As an example, when an attempt was made to have the general councils confer regarding a monopoly of the wholesale trade, "twenty members of the councils seized the occasion to demand that the privilege of private distilling be maintained. Ten others, it is true, demanded its suppression or restriction, but they were in districts where there were no private distilleries. Twenty-one councils were in favor of monopoly; seven were for a higher tax, and twenty-three, thinking without doubt that the question was a trifling one, did not even give it attention. His Majesty, Alcohol, is too powerful for one representative to dare attack it."

M. Gibon does not think that the regulation of the saloon would be efficacious. It would only indicate regard for public decency, not a serious measure against alcoholism, any more than would the law of 1873 against public drunkenness.

Limitation of the number of saloons would not in itself be an adequate measure for staying alcoholism. It is, however, a very desirable measure and would open the way to more important reforms.

Dr Bertillon is quoted as saying that the power of the liquor interests could be reduced by giving the ballot to women and allowing minors to be proportionately represented by the fathers or guardians. This would give a far greater voting power than the liquor dealer or the rich café loafer, who happened to be a bachelor.

COMMERCIALISM'S PART IN ALCOHOLISM

Alcoholism as a result of over-production is considered with a view of estimating the benefits of restricting production. The commercialism, that in the United States, more than any other one factor in the liquor trade, finally reacted to undermine it and helped its downfall, is also in France.

"Alone among all civilization, ours has applied itself with the same energy to manufacture always the largest amount of products, from alcohol to explosives, from cannon to aeroplanes, without ever being uneasy as to the use that must be made of them. Thus have been produced enormous quantities of alcohol, and then having been made they have been turned out upon the masses even at the risk of destroying whole peoples. It is not thirst of men that compels trade and agriculture to produce ever larger amounts of drink; it is trade and agriculture which, swept along by the formidable world economic movement, increase production and, in order to sell it all, teach the masses to get intoxicated. Our ancestors were more sober, not because they were wiser but because they produced less alcohol; what they did not have, of course, they could not drink; also what they did produce was milder."

The only practical recommendation to which this summing up of the influence of production on drinking brings Gibon is "entire prohibition of inferior spirits designed for liqueurs; rigid restrictions upon production of spirits of good quality."

The failures of parliamentary action on the liquor question are scathingly summed up

in a quotation from Joseph Reinach, who was long the temperance parliamentary leader and whose independence on the question cost him his seat. Among these indictments are the following:

Limitation of liquor shops was voted for only when the number had become half a million—"the point of saturation"—one for every 82 inhabitants, compared with one for every 432 in England, and for every 5,000 in Sweden, and this measure lacked "teeth."

The suppression of private stills has nevertheless allowed domestic consumption of spirits.

But these varied measures have been voted only since the war under the pressure of public opinion and they were slow in producing results for the same reason that the dose of quinine which would have been effective when given at the beginning of the fever is not sufficient when the disease has become acute.

WORKMEN AND SOLDIERS DESPOILED BY DRINK

"The proof of these criticisms," M. Reinach said, "is to be found in what most of us have been able to see for ourselves and in the humiliating and painful facts published in the papers and filling our court records. There are thousands of workmen in our departments of Normandy and Breton who consume a pint and more of brandy a day. One of them hung himself yesterday after setting a fire that destroyed four farmhouses in his village.

"There are soldiers who after their duty at the front stagger through our streets and, scarcely convalescent from glorious wounds, even at the gates of the hospital are lain in wait for by the sellers of poisonous drugs.

"There are other soldiers—I have their names—whom the courts martial have condemned to severe punishments and even to death, often in spite of honorable citations, because they were guilty, while in a state of drunkenness, of misdemeanors or of trying to kill their superiors. The comrade of one of these unfortunates wrote to a nurse: 'It is too bad, but it had to come. When he had been drinking he was crazy.' And the liquor seller of whom this man was a victim is enthroned behind his bar!"

The consumption of spirits has decreased during the war showing, M. Reinach admits, that the measures taken were not wholly useless. Yet he believes the reduction is also due to the war itself which withdrew men from civil life and civilian customs.

"There are entire regions where the consumption of alcohol has increased instead of diminishing in spite of the departure of all the youths and able men for the war . . . and the war has developed the most deplorable of all alcoholism, that of *women*."

The political situation and the way out as indicated by Joseph Reinach, are quoted by the author. He showed that the members of Parliament are threatened by the liquor interests with losing their re-election if they do not vote as these interests desire. It is for the temperance people to acquire equal power by holding meetings, by the aid of the women, by advertising and agitating, until their petitions are not treated as "scraps of paper" because they will be backed by a sufficient number of the little piece of paper before which the candidate bows—the ballot.

"Alcohol or the nation and the race—here we must choose."

ATTEMPTING CONSTRUCTIVE MEASURES

While a provisional suppression of home distilling was decreed by law enacted in June, 1916, to terminate at the end of the war, the difficulty of entire Prohibition of distillation when the home or farm distillers numbers more than a million is apparent. Special measures will have to be found to prevent too heavy losses to the farmers. To this end a commission nominated by the Minister of Agriculture has been working on the development of fruit production and markets for it at home and abroad that will bring even greater profits than distilling. Special attention will have to be given to the conditions of the industrial alcohol industry.

The Commission on Hygiene as quoted by M. Reinach believed that prohibition of the manufacture and sale of distilled liquors is desirable and may be realized. With it should go public monopoly of the wholesale and retail trade in it. To this public monopoly of spirits,

the author would add increased legislation against violation, and vigorous enforcement and strengthening of the law against drunkenness.

THE BATTLE AGAINST ALCOHOLIC INJURIES ("Der Kampf gegen die Alkoholschäden"). By Immanuel Gonser, Secretary of the German Association against the Misuse of Spirituous Drinks. Berlin: Massigkeits verlag des Deutschen Vereins gegen den Missbrauch geistige Getränke. 1917.

A speaker at the hygienic congress in Dresden in 1911 prophesied that the time would come when all human questions would be decided on their relation to health.

That time has come sooner than the speaker supposed, said Dr. Holitscher of Carlsbad, Austria, in an article on the future of the abstinence movement. (*Internationale Monatschrift zur Erforschung des Alcoholismus*, July-August, 1917). This does not mean, he said, that everyone yet recognizes the imperative necessity which the physical results of the war place upon considerations of health, but it is for the far-sighted to bring and keep it before the public mind.

One of the first questions that will have to be considered is the policy of deriving public revenue from the sale of alcohol. The fact that alcohol is a menace to public health must take precedence over all the self interests that will seek to perpetuate it. The agriculturists, the hop raisers, the potato barons, the vineyard owners will not be able to pay so much land rent; capital invested in breweries and distilleries and wine cellars will bring less interest; there will be less labor employed in bottling and brewing, in inns and restaurants, and these laborers will all fear unemployment. They may be expected to organize to resist any feared diminution in their respective incomes. Those who will urge the importance of public health are comparatively few and uninfluential.

There will also be increased danger of abandonment to drink. The nerve-racked and suffering will turn to alcohol for relief. Liquor capital, which during the war has become used to reckoning in millions, will not be satisfied with the old ways, but will try to operate on a larger scale.

To combat these dangers of the post-war period Dr. Holitscher urged that the temperance forces make greater efforts to enlighten and influence the law makers. The trend to democracy will undoubtedly carry the discussion before the masses, and much help, it is hoped, will be obtained from the women. Planning methods of work would doubtless meet the difficulty of getting unity of action because he recognizes that a German characteristic is unwillingness to make concessions on carefully thought-out conclusions. He prefers to withdraw entirely. This will make it difficult also for those who belong to different political parties to work in unison, or to accept a candidate of an opposite party because he is right on the alcohol question. For this reason Dr. Holitscher thought it might even be necessary to form a new political party whose creed should be that health considerations should take precedence of all others. This party he thought would come closest to the social democrats and might draw many socialist members. The leaders should be the abstaining physicians.

GERMAN WAR ALCOHOL PROBLEMS

Prof. Gonser in his pamphlet details some of the facts that were making alcohol a serious national problem in Germany the year before the war closed, and the scope of the change that must be instituted to build up again the strength of the people after the devastation of war. The alcohol question touches the body politic in strength, capacity, and progressive and higher development. Drinkers are a dead weight because of their disability and dislike for work, their poverty, sickness, coarseness, and criminality. But their existence is perpetuated by the liquor traffic, which opposes the teachings of science and seeks to combat it by extolling the use of drink as a promoter of good humor, conversation, strength and enjoyment. The traffic has plenty of money, while the opposition to it has little. To win against it will require a general understanding of the issues. In his delineation of these issues, Prof. Gonser passes in review the main points in the consideration of the liquor traffic which will have a serious bearing on the problems of reconstruction in all countries.

DRINK A WASTE IN RECONSTRUCTION

Money will be needed for reconstruction after the war. Will it be forthcoming if the people continue to spend so much for beer? Dr. Hirschfeld in his book a few years ago on the guzzling in Berlin (*Die Gurgel von Berlin*) computed that the people of that city spent one-seventh of their average annual income for drink. In an investigation in Baden of the expenditure by industrial workers for alcoholic drink it was found that it stood at 5 to 1 for insurance, 9 to 1 for taxes, and 15 to 1 for education. These ratios were not those of drinkers' families, but of the average families who followed the national custom of frequenting the public houses and drinking alcoholic liquors.

Only by smaller expenditures for drink by the class who live from hand to mouth, says Prof. Gonser, can the standard of living in matters of food, clothing, housing, education, and provision for a time of need be maintained at a higher level.

In addition are losses in efficiency which drink causes. Drink renders the workingman more easily fatigued, less able to comprehend, to remember, to give attention, and to think. All these impairments keep down his income and his chance of rising. Add to this the fact that it makes him less desirous of working and increases his liability to accident, and the toll is correspondingly increased.

Other economic losses which extend from the individual to the body politic are the burden of maintaining those who through drink become dependent or incapable of supporting their families, and the enormous amounts of food material used up in the production of alcoholic beverages.

ALCOHOLIC IMPAIRMENT OF MORALE

Prof. Gonser's depiction of the effect of alcohol upon character is of particular interest now when the world is trying to understand the German psychology—and it is doubly impressive as a warning to other countries.

The vaunted exaltation of the sense of well-being, he shows is a self-deception. Not only is time killed around the beer table, but so also are idealism, mental energy, noble aspirations. Taste for amusements is coarsened, men are cruel in their homes. If German mothers understood how drinking destroys the morality of their sons, they would rise against it. It is not drunkenness, but the state of exhilaration that leads to immorality. Not without fighting drink can the struggle against immorality be won.

The association of drink with crime is evident in the headings in the daily papers. The number of occasional drinkers among the criminals is large.

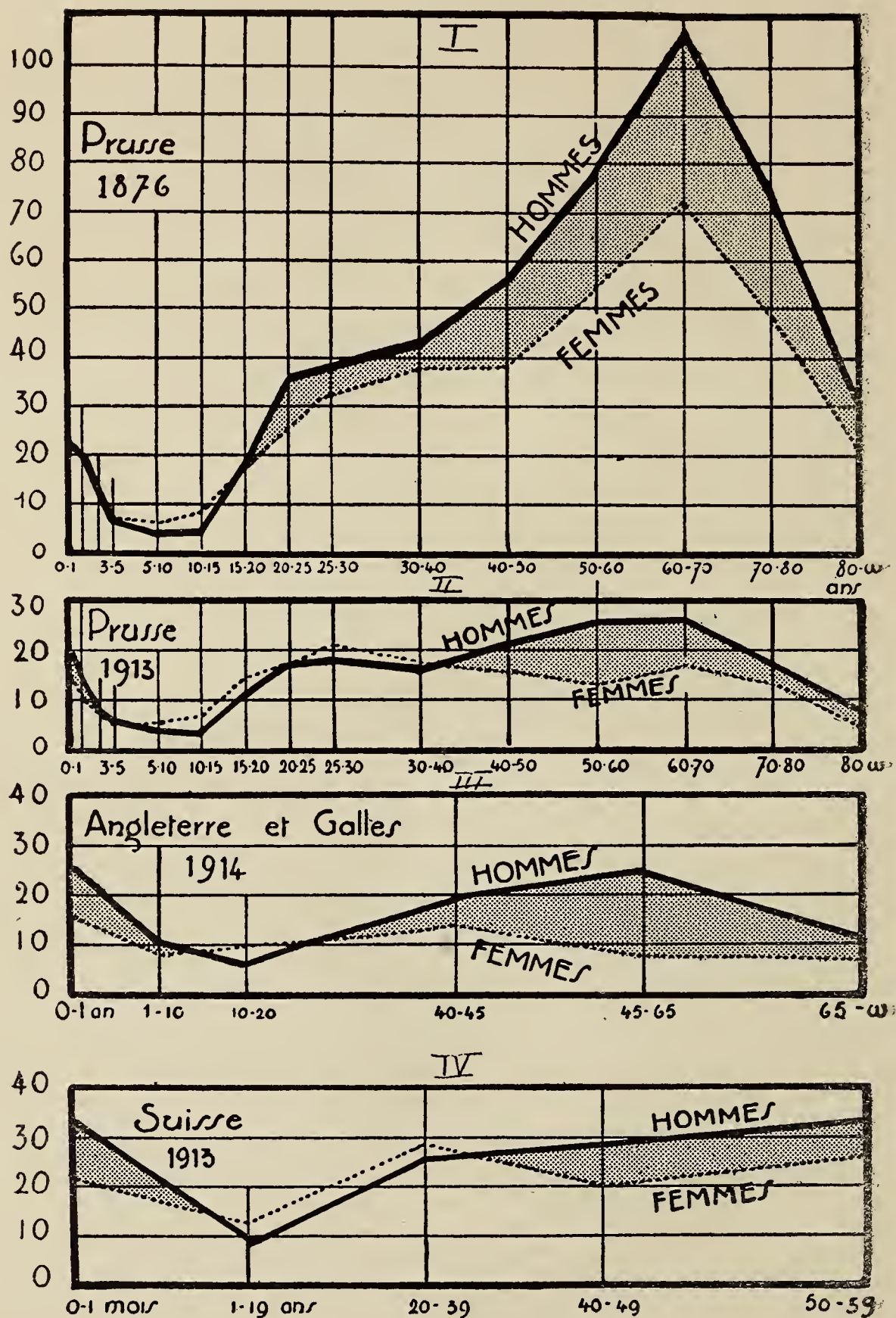
Family ties are broken by drink. When fathers, or sons and daughters spend a large portion of their time in public houses they lose interest in the home. Of 3,000 divorced women cared for in Berlin, the drinking habit of the husband was almost without exception the cause of the separation.

The protection of children from the effects of alcohol is an important matter. Formerly expectant and nursing mothers were advised, even by physicians, to take beer and wine. Now the professional classes recognize that children should not be subjected to alcohol. Yet the regular or occasional use of alcohol by children is widespread.

Dr. Gonser maintains that the war has taught the German people greater seriousness and more regard for public health and welfare. Mobilization without alcohol was a success, but the prohibition was not continued. During the war the liquor traffic got in its propaganda in behalf of alcohol, and the effect of the strain and hardship upon those accustomed to it made them want to continue using it, although experience showed that abstaining soldiers had the best resistance.

There are conditions which give anxiety for the future. Women have had more money to spend and as a diversion from anxiety have frequented the beer houses, as have also their sons and daughters. There has been an increase in juvenile drinking, and in prostitution. Returning soldiers have found wives and daughters degraded. More drunken women are arrested.

Still Prof. Gonser is optimistic that the country will not have to build more institutions to care for the alcohol wrecks, but that the people will be roused to fight the alcohol menace.



GRAPHIQUE II

Répartition des décès causés par la tuberculose, par groupes d'âges et par sexes.
Proportion des décès pour 10.000 personnes de chaque groupe

For explanation see footnote, page 179.

For this fight science has furnished plenty of evidence, and it must be used in the family, the school and the public press to educate the people. The traffic will exert itself to the utmost, but laws must be secured for protection against it. The forces for carrying on the fight are the many anti-alcohol organizations, and also the institutions for the care and treatment of drinkers organized in over 200 cities.

ALCOHOL AND TUBERCULOSIS ("Alcool et Tuberculose"). By Jules Denis. Geneva, Switzerland: Imprimerie atar. 1 fr.

This study makes a comparison between the leading nations of the world taking into consideration the increase or decrease of tuberculosis and alcohol consumption; also the difference between the tuberculosis rates of men and women at different ages.

Accompanying the statistics are brief accounts of the anti-alcohol movement in the same countries.

The object of the study the author states at the outset, is not to ascertain the relations of all the causes of tuberculosis but only of one—alcoholism.

THE DIRECT AND INDIRECT EFFECT OF ALCOHOL

Alcohol he regards as a powerful cause of cellular disorganization, of bodily weakness and impairment of natural defenses. It begins by disordering digestion, the nutrition of the tissues and the affinity of the lipoids.

It produces disorders in the circulation, in the liver, kidneys and glands and by diminishing leucocytosis prepares the way for invasion by all germs of disease, particularly the Koch bacillus of tuberculosis.

The hereditary effects of alcohol predispose the child to tuberculosis which is frequently met in the form of osseous and articular affections, and tubercular meningitis.

Indirectly drinking habits favor tuberculosis by reducing the proportion of the family income available for food and clothing and housing all leading to conditions that reduce the physical resistance of the family.

COMPARISON OF MALE AND FEMALE DEATH RATES BY AGES

The statistics are taken from the official reports of the countries studied.

In several instances the curve of alcohol consumption preceded by some years the parallel direction of the curve of death from tuberculosis.

The causal relation of climate stands out in these studies, the cooler countries, Finland, Norway and Scotland, having higher rates of tuberculosis than warmer countries, irrespective of their comparative alcohol consumption. The comparisons between the sexes leave no grounds for claiming that the greater abstinence of the northern countries makes them more vulnerable to the disease.

DEATHS PER 10,000 PERSONS, MEN AND WOMEN

In Prussia in 1876 the tuberculosis death-rate was about the same for boys and girls below the age of 5, falling from over 20 per 10,000 at birth to less than 10 per 10,000 at 5 years. From 5 to 15 years the rate was higher among girls, rising again to nearly 20 per 10,000.

Here the rates cross and the male rate, rising to nearly 40 per 10,000 between 15 and 25 years, continues from 7 to 8 per 10,000 higher than the female rate, until in the decade from 30 to 40 there begins a steady rise in the male rate reaching nearly 110 per 10,000 at ages 60 to 70, while the female rate, practically unchanging from 30 to 40 years, at the 60 to 70 age period is only a little above 70. From that age both rates descend rapidly, but the male rate much more rapidly. (See chart, Page 178.)

The figures for Prussia in 1913 are quite different. Under 5 years the boy rate of death from tuberculosis is the higher, the decline of both curves from birth to 5 years remaining about the same, but the female death rate continues higher than the male until after 30 years,

Heavy line represents death rate of men; dotted line of women. The four illustrations taken from Jules Denis' "Alcool et Tuberculose" (See above) represent in order beginning with the top: Prussia in 1876, Prussia in 1913, England and Wales 1914, Switzerland 1913.

for the most part running under 20 per 10,000. This lower course may safely be attributed to the measures taken in recent years for the suppression of tuberculosis. But between the ages of 30 and 48 the rates begin to run in opposite direction, male up and female down, with a slight rise at 60 to 70.

It is these differences between the relative frequency of tuberculosis in men and women during the years when the drinking habits of the man are most pronounced that is interpreted as an index of the alcoholic influence.

If the greater occupational exposure of the men had an important influence on this difference, the lines ought to cross earlier, between 20 and 25 years instead of between 30 and 40 years.

The figures for England and Switzerland for 1914 and 1913, respectively, show a close resemblance to the Prussian 1913 curve; the rate for women drops earlier and in youth runs higher than the male rate.

Both of these countries show high tuberculosis death rates in early infancy, and a higher rate for boys than for girls, the ethnic interpretation of which according to Denis would be racial degeneracy manifesting itself into the biological inferiority of the male young. The beginning of this difference can be seen in Prussia in 1913, whereas in 1876 the mortality rates for boys and girls under 5 years of age was the same.

This is aside, however, from the author's point that the effect of alcohol on resistance to tuberculosis shows itself in the decidedly lower rate in women during the years of heaviest drinking among men. This was also true in the Danish statistics (1905-09) by Hindhede. (See JOURNAL, Feb.-March, 1915.)

PARALLELISM OF TEMPERANCE MOVEMENTS AND DECREASING TUBERCULOSIS

Tables, based on pre-war statistics, are given of the mortality from tuberculosis in the various nations as compared with the consumption of spirits for considerable periods of time. Wine and beer are intentionally omitted for purposes of comparison. The conclusion reached by M. Denis is that in general the countries where the most vigorous anti-alcohol campaigns are being waged and where the use of spirits tends to decline, are those where tuberculosis is also markedly declining, while the countries that have had little reduction or even an increase in spirits' consumption show, in general, correspondingly small improvement or even increase in tuberculosis mortality. The first group includes England, Wales, Scotland, the Scandinavian countries, Germany, Holland, Belgium, the United States, Australia, Switzerland. The second group includes Ireland, France, Austro-Hungary, Italy, Portugal, Servia and Russia. One reason for the more marked improvements on the average in the first group the author considers to be the active anti-alcohol work that has gone on in them for from 25 to 75 years. The result has been "a clearer conscience, stronger wills and bodies, more open and intelligent minds." Education of youth has been given a foremost place. All this reacts favorably on the diminution of tuberculosis aside from the direct effects of reducing the physical weakness caused by alcohol that "prepares the bed for tuberculosis." "Alcohol," says Capt. (Dr.) S. A. Knopf of the Medical Reserve Corps U. S. A., in a recent pamphlet for soldiers, "is one of the greatest predisposing causes for tuberculosis." (*How to Live*. April, 1918.) It is undoubtedly true also that the countries of the first group are those in which the most anti-tuberculosis work has been done.

The author supplements the tuberculosis discussion by a brief history of the temperance movement in the various countries.

GOVERNMENT CONTROL OF THE LIQUOR BUSINESS IN GREAT BRITAIN AND THE UNITED STATES. By Thomas Nixon Carver. New York, London, Toronto, Melbourne, Bombay: Oxford University Press. Cloth \$1.00. Paper bound copies furnished gratuitously by the Secretary of Carnegie Endowment for International Peace, 2 Jackson Place, Washington, D. C.

This study of government control of the liquor traffic by the professor of political economy of Harvard University was undertaken according to the preface, in the expectation that the experience of Great Britain might be useful to the United States during the war. Events

in America, however, outran those in Great Britain and the completion of the study. The volume is none the less valuable for reference because of this fact. It contains the text of various orders directed toward control of the liquor traffic in Germany and Great Britain during the war as well as of successive war measures of the United States.

The conditions influencing action taken are keenly analyzed, as the question of food wastes, of impairment of efficiency by drink, the psychology of the masses toward the urgent need of winning the war which many feared would be unfavorably affected by cutting off all supply of alcoholic liquors.

Nowhere has there been so thorough or complete a discussion of the waste of food materials in liquors and of the value of grain used directly as human food, or indirectly, by conversion into animal products, as compared with its value when used for liquor and its refuse fed to animals. Dr. Carver estimates (page 26) that if barley were milled for human food, 60 per cent would be available directly for human consumption and the remaining 40 per cent, if fed to animals, would have slightly higher value for feeding animals than the refuse would have if the same grain were used for the making of alcoholic drinks. This 60 per cent used for the manufacture of human food would therefore be a clear gain. This would "amount to a total of 648,927,360 pounds for the United Kingdom during the year ending March 31, 1914. This quantity would have furnished a pound of flour or cereal per day to one and three-quarters millions of people a year. If we assume that two-thirds of a pound of dry flour will make a pound loaf of baker's bread, the extra third of a pound being in the form of moisture, and if we make a similar allowance for the cereal when it is cooked and prepared for consumption, we have the equivalent of a pound loaf per day for two and five-eighths millions of people."

So far as the effect on military and naval forces of governmental policies toward liquor was concerned, Dr. Carver thinks the case reasonably in favor of the American war measures. "The prompt and decisive manner in which Congress and the higher administrative officials dealt with the question compared with the tentative and half-hearted way in which the English government acted, leaves no room for doubt. The effect of prohibition of sale to the American troops is beyond all comparison superior to those mild restrictions upon drinking by the British troops."

Especially keen is the analysis of the claim that prohibition laws are difficult to enforce, a claim that in time past has been urged as an objection to prohibition legislation. Dr. Carver calls this argument an evidence of "complete inability to grasp the fundamentals of the liquor problem. If a prohibitory law were not very difficult to enforce, there would not be the slightest reason for having a prohibitory law. If it were not difficult to enforce a law against drink, it would argue that there was no very strong desire to drink liquor. If there were no very strong desire to drink liquor, it would not be worth while having a law to prevent drinking, however harmful it might be to those who saw fit to drink."

The drink question, Dr. Carver maintains, belongs to the class of cases which involve necessity for legal control and great difficulty in effecting that control because it unquestionably forms a case "where there is a powerful and widespread desire which leads large numbers to excess, and the results of that excess are exceedingly harmful. If there is anyone who doubts either of these statements, he is welcome to his views. Ink is too precious to waste upon him."

Great Britain's war measures like those of other countries took the form of legal control or repression of the liquor traffic as a measure of war efficiency, although as Dr. Carver points out, the results of inefficiency are as truly present in times of peace. In America, on the other hand, "for at least forty years before this war, the tendency had been toward prohibition rather than control as a method of solving the liquor problem. What is more important for our present purpose is the fact that, having that experience behind us, it was inevitable that our policy toward drink in war time should likewise be one of prohibition rather than that of control."

A long and useful bibliography of recent official reports, books, pamphlets, magazine articles, and temperance and liquor periodicals closes the monograph.

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